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Sanskrit Academy Granthamālā - 116

Reflections on Kautilya

(Administration, Economy and Life Values)

Dr. P. Shashi Rekha
Professor of Sanskrit (Retd.)
Osmania University

Chief Editor
Prof. K. Neelakantham

Sanskrit Academy
Adarsha Shodha Sanstha
(Recognised by Central Sanskrit University, New Delhi)
Osmania University Campus,
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PREFACE

॥ ओम् श्री गुरुभ्यो नमः ॥
॥ श्री शङ्करभगवत्पादा विजयन्ते ॥

Arthashastra of Kautilya presents an insight into the ancient Indian anthology of political wisdom, theory and the art of Statecraft. It is indeed one of the major political and strategic expositions which provide collection of timeless concepts. The importance and relevance of such strategies and concepts could be enriching to the contemporary world. In brief the Arthashastra is primarily a treatise on the governance of a state. It deals largely with all the important issues along with internal administration and foreign relations. Arthashastra deals with three distinct parts. The first one explores the administration. It defines the organization of the state and prescribes the duties and responsibilities of all administrators. The second part explains the code of law and justice. It deals with both civil and criminal law and provides penal code. The third one deals with the foreign policies. These three parts correspond to the three very important objectivities of a state i.e. wealth, justice and growth. "A stable and prosperous state can only be secure if it has efficient administration"

Prof. P. Shashirekha former Head Department of Sanskrit Osmania University a very distinguished scholar of Darshanas, Sahitya and Arthashastra has written books on Ancient Indian Administration, Kautilyan penal code, Technical words in Ancient Indian Polity etc. She has given more than fifty lectures on various topics of Arthashastra such as administration, economy and life values etc. which are relevant to the modern times. She has selected some of the important articles among them added more required information and

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made ready a book with the title "Reflections on Kautilya" (Administration, Economy and Life values). It is indeed an exceptional work and could be much beneficial to the researchers and also to the readers of Arthashasta. On seeing this excellent work, I have requested her to allow us to publish it from Sanskrit Academy. Prof. Shashirekha is my senior in the department and learnt shastras under Mahamahopadhyaya Pullela Sriramachandrudu. She is a person of very generous, kind hearted and has great regards for Sanskrit Academy hence she has accepted immediately my request. I am greatly indebted to her.

I always think amicably the support and sincere help of my two deputy directors Dr. V. Subrahmanyam and Dr. K. Varalakshmi, the two research assistants Sri K. V. Suryaprakash and Dr. Joshi Santoshkumar.

I must record my sincere thanks to Prof. Subbarayudu honorable Vice Chancellor and Prof. Subrahmanya Sharma Registrar of Central Sanskrit University, New Delhi who motivate us in the field of research and propagation of Sanskrit. And I am grateful to Prof. D. Ravinder, honorable V. C. and Chairman Management committee of Academy and Prof. Lakshminarayana Registrar of Osmania University for their encouragement.

I thank Sri K. Nagaraju, Dharani graphics, Ramnagar Hyderabad who has done D.T.P. work and Karshak Art Printers Vidyanagar, Hyderabad for printing this book on time.

सुधीजनविधेयः
आचार्यो के नीलकण्ठः
निदेशकः

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Prologue

I have great pleasure in writing these words for felicitating my esteemed frind Prof. P. Shashirekha on the publication of her latest book "Reflections on Kautilya".

Kautilya is one of the worthiest pioneers of Indian Intellectual tradition. He has propounded the basic principles of Arthasastra, a discipline representing the domains of business, administration governance, jurisprudence, economly, polity and above all moral values.

Prof. P. Shashirekha is a dedicated scholar and has gained access into various branches of Sanskrit Studies such as language and literature, Dharmashastra and Arthasastra. She has been fortunate to have studied under the tutelage of a great Sanskritist, Prof. P. Ramachandrudu and is carrying forward the legacy of her mentor.

The book in hand is a collection of her select papers on the diverse aspects of Kautilyan thought and she has been successul in relating these ancient ideas with the contemporary areas of study like science, management, intelligence, ecology and women's welfare etc.

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I am sure the papers contained in this volume will be of much value and interest for the scholars as well as researchers engaged in this field. Therefore, the book is presented before the discerning readers with an earnest endorsement for an indulgent sutdy.

With best wishes,

Shashi Prabha Kumar,
Dean,
Sri Sankaracharya Sanskrit Mahavidyalaya
Bharatiya Vidya Bhavan,
Delhi Kendra

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Foreword

It was 1981 I stepped into the room of Mahamahopadhyaya Prof. P. Sriramachandrudu to request him to suggest a topic for my M.Phil Research. He has suggested me the interesting topic "Offences and Punishments in Kautilya's Arthasastra". Prof. P.G. Lalye was my guide. But he advised me to take the guidance from Prof. P. Sriramachandrudu, who was an alround and profound scholar. It is not that easy to understand the technical words of Acharya Kautilya. In each and every step Acharya Sriramachandrudu garu guided me and enabled me to submit my dissertation with in the stipulated time. The study of Arthasastra was so interesting that I felt to do further research also on the same treatise of Kautilya. After receiving M.Phil degree again I went to Acharya Sriramachandrudu garu for the topic for my Ph.D. based on Arthasastra. This time professor has taken time two to three days and then suggested me the topic "Ancient Indian Administration with special reference to Arthasastra, Manu and Yajnavalkya".

Again, under his guidance I have completed my work and received the Ph.D. award in 1989. The grace and greatness of guru takes the students to higher goals. Within a period of six months of my Ph.D. award the Cosmo Publications approached to publish it and published in 1996. My M.Phil work also published in 2000 with the title "Kautilyan Penal Code". Thus, my two-research works are well received. Since then, I am invited by various universities (Sanskrit Departments) to give lectures on the topics related to Kautilya's Arthasastra. Thus, more than fifty lectures and papers in the seminars were presented by me during my service of 27 years in Osmania University. Most of the papers are published in Sanskrit journals and Seminar proceedings but are not known to the scholars of other

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faculties except Sanskrit. The subject matter discussed in Arthasastra is quite relevant to the modern times. But unfortunately, it could not find place in modern curriculum. Only a few lines found mentioned in the topics on Ancient Polity / Economics etc. This made me to take an initiative to select some of the articles to throw the light on the treasure-trove of ancient wisdom. Thus, fifteen articles are selected by me to bring into a book form. My learned friend Prof. Shashiprabha Kumar at my request has suggested the title "Reflections on Kautilya" to this book and also blessed me with her short and sweet prologue to this work. I express my heartfelt gratitude to her for extending her support throughout my academic journey.

I hope this book works like a torch to focus on the valuable gems of knowledge with which the enthusiastic researches would contribute their best to the society.

I express my gratitude to the Universities, Departments of Sanskrit and other scholars, who have provided me the opportunity to express my views in the scholarly assemblies.

I thank Prof. K. Neelakantham, Director of Sanskrit Aademy and its staff members for accepting to publish it from Sanskrit Academy.

Dr. P. Shashirekha

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Reflections on Kautilya

(Administration, Economy and Life Values)

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Introduction

The very mention of the name "Acharya Kautilya" creates vibrations in Indian history. The philosophy of Indian scholars is not to bother about the time, place, race they belong to. They never had interest to declare their identity because of which they have not left any clues about their history. Their main and sole aim was social welfare. One should keep in the mind that such lack of the details of their personal life infact make them as *'Sarvajanina'* belonging to all.

Thus even in the case of Acharya Kautilya very little is known through literary evidences. The Vishnupurana states-

"***Mahapadma*** Then his sons, only nine in number, will be the Lords of the earth for a hundred years. Kautilya, a Brahmin will slay them. On their death the Mauryas will enjoy the earth. Kautilya will install Chandragupta on the throne. His son will be Bindusara and his son will be Ashokavardhana (King Ashoka)".[1] Ashokan inscriptions also stand as evidences to some extant in deciding the period of Chandragupta and Kautilya.

According to Indian epigraphical researches Chandragupta was made king in 321B.C., and Ashokavardhana ascended throne in 296B.C. Therefore, it may be during this period that Acharya Kautilya has composed his magnumopus 'Arthasastra'.

Kamandaka, who has modeled his Nitisara on 'Arthasastra' pays tributes to Acharya Kautilya and appreciates

his genius with which he single handedly over threw Nanda Dynasty. He says –

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"Salutation to the great Vishnugupta, who is a Brahma (in intellect), by whose fuming luster like thunderbolt with which the rich Nanda mountain fell down along with its roots, who alone with his powerful diplomacy like Indra with his thunderbolt, bestowed the earth on Chandragupta, the moon among men and who broughtout the nectar of polity by churning the ocean of political science.[2]

Coming to the name of Acharya Kautilya there are different explanations by the scholars. According to some he is Kautilya because, he belongs to 'Kutala' gotram, known as 'Chanakya' hailing from 'Chanaka'. As mentioned above, Vishnupurana refers to Acharya Kautilya by the name Kautilya and Kamandaka by the name Vishnugupta. Acharya Kautilya mentions 'Kautilya' throughout the work and only at the end mentions as Vishnugupta, where he clarifies that both the Sutra and Bhashya are composed by the same author Vishnugupta. He states -

"Having seen the discrepancies in many ways on the part of the writers of commentaries on the Sastras, Vishnugupta himself has made Sutra and Bhashya (commentary)". He also claims that this work is composed by him who has angrily seized the weapon (Sastra), the science (Sastra) and the territory gone in to the hands of Nanda Kings.[3]

Thus Acharya Kautilya is very meticulous and has not given any scope even a little to corrupt the main text. To know the genius of Kautilya no evidences are required. The text "Arthasastra" stands as a model to a research work. All the sastric formulas are adopted in the arrangement.

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Coming to the arrangement of the text, there are 15 Adhikaranas, 150 Adhyayas and 180 Prakaranas in which the subject matter is divided. The first chapter of 1st Adhikarana enlists the topics discussed in the text. At the outset the author states that the present work is composed after going through almost all the Arthasastras composed by ancient teachers dealing with the subject of acquisition and maintenance of the earth.[4]

Thus the purpose of the work is also indicated through the above statement. Kautilya had a perfect vision which reflects through Arthasastra which explains even a minor topic pertaining to the welfare of the people. According to him a country means not the mere land but that which has the resources that provide livelihood to the inhabitants. It is defined by him in the following words.

"The Artha (cash or kind) is the sustenance of the human beings, it is the earth which has people inhabited in it, the science which is the means of acquisition and protection of such earth (country) is Arthasastra".[5]

This statement is the base for the entire polity. The two things which are mentioned here are proved by the history. The first one – acquisition of the kingdom. The example may be taken from the great epic Mahabharata. When Pandavas were sent out of Hastinapura, they with the help of Lord Srikrishna have constructed Indraprastha by developing the dreadful forest Khandava. Similarly many kings either conquered others' kingdoms or made establishments with the cooperation of their followers. The second one is protection of the state acquired. As soon as a king occupies the throne he would try to suppress the enemies and would take the welfare schemes for the kingdom.

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Maintaining a kingdom is not an easy thing that too in monarchy, in which the king is held responsible for everything. Even if things are manipulated by the employees it effects on the character of the king. Hence, the position of a king is very peculiar which is well described by the great poet Magha in the following words –

"Intellect as weapon, constituents as Limbs, Secrecy as an armour, spies as eyes, envoy as voice – The king is someone who is a distinct one".[6] In the theory of Saptanga the king is the head of the sovereignty. But the head alone cannot work without other constituents. All the sense organs are situated in the head only. The eyes, ears, nose, tongue, brain are important without which a man would not be a being at all. These important organs in the body of sovereignty are the ministers and spies. The remaining organs of actions hands, feet etc, are the employees in the administrative system. Keeping all this in the mind Acharya Kautilya has drawn a frame of work which does not allow any deviation from it.

Coming to the treatise Arthasastra the methodology followed by Acharya Kautilya is role model to any work dealing with the topics of Management and Administration. As stated by the author the Arthasastra consists of 15 books (Adhikaranas), 150 chapters (Adhyayas), 180 Prakaranas (Sections). On the whole 6000 slokas (sloka means a composition of 32 syllables).

The fifteen Adhikaranas are as follows:[7]

1. Concerning the topic of Training.
2. The activity of the Heads of Departments.
3. Concerning Judges.

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4. The suppression of Criminals.
5. Administering Secret measures.

The above Adhikaranas deal with the internal administration.

6. The circle of the Kings.
7. Six fold foreign policy.
8. Concerning the calamities.
9. The activity of the king about to march.
10. Concerning war.

These above five deal with foreign policy / External affairs

11. Policy towards oligarchies.
12. Concerning the weaker king.
13. Means of taking a fort.
14. Concerning secret practices.
15. The method of the science.

As mentioned above, the first Adhikarana deals with the topics concerning education, discipline, qualities that are required for the six constituents of the sovereignty. The group of seven constituents – Svami, Amatya, Suhrt, Kosa, Durga, Rashtra and Bala is called 'Rajyanga', 'Sovereignbody'. Of these Svami is the king who is the head of the state. Amatya the minister (the cabinet) is a constant companion to him. Suhrt is an ally who stands by the king in times of calamities. Kosa is the treasury i.e. The Finance Department. Durga is the defence wing. Though the term generally taken as fort, the exact meaning of 'Durga' is - inaccessable. Hence, it may be taken as the internal security wing. Rashtra is the state which means the people of the state. The last one 'Bala' is the Army which is the strength of the king to resist the enemy's attack.

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The entire administrative system has four pillars which support the structure. The King, the ministry, the Chief Advisors (Priests) and the intelligence department. Acharya Kautilya lays the principles regarding the selection of a king and also of all the ministers, chief councilor and the priest. The appointment of Magistrates, Judges and all the heads of the departments is discussed in this first chapter.

The detailed picture of selection procedure of the ministers, spies and other important officers presented by Acharya Kautilya is quite relevant even to these modern times. Particularly the chapter 'Amatyaniyukti' (1-8) deals not only with the selection of ministers, chief councilor but also with the selection of Judges and magistrates who play an important role in protecting the justice in the society. The second Adhikarana "Adhyakshaprachara" explains the activity of the entire Administrative machinery. Third and Fourth Adhikaranas are devoted to the subject matter pertaining to civil and criminal law respectively.

The vision of Kautilya is appreciated in many ancient works. Kamandaka in his Nitisara follows Acharya Kautilya not only in the case of subject matter but also in the style of presentation. Even Yajnavalkyasmrti agrees in many places with that of Arthasastra. The plan of action according to Kautilya is five fold – 1. The means of undertakings, 2. The manpower and money (material) power. 3. Allocation of place and time, 4. Remedies for calamities, 5. Accomplishment of the work.[8]

But no system works without the fear of disciplinary action. Therefore, Acharya Kautilya has given utmost

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importance to Dandaniti, the science of polity. 'Danda' is a scepter which protects the world. In the absence of which there prevails the law of fish. Manu states the importance of Danda in following verse –

"Danda rules the people, it only protects the people, it is ever awaken when all are asleep. Hence, the wise consider Danda itself as Dharma".[9]

Acharya Kautilya thus defines the danda –

The danda is the means of ensuring the pursuit of philosophy, three Vedas and economics. That which teaches its implementation is dandaniti. It is the one with which the things not acquired are acquired, those acquired are preserved, those preserved are developed and those developed are distributed among proper recipients.[10]

The welfare of any state is rooted in the above four ways of financial management. If any one of these is violated the state faces a threat from the enraged subjects. Although Acharya Kautilya does not focus on the education system, his analysis of the branches of knowledge is an eye opener to those who look at various topics of learning different from each other. The contribution of the four main branches of knowledge according to Acharya is as follows –

Merit and Demerit are discussed in Triple of Vedas, profit and loss are in Economics, good policy and bad policy in Dandaniti, the strength and weakness of the above three topics are known with the help of philosophy which investigates with reasoning, keeps mind stable in adversity and prosperity and brings about proficiency in thought, speech and action.[11]

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Philosophy, Three Vedas, Commerce and trade, science of polity – these are the four branches accepted by Acharya Kautilya. As mentioned above he gives first place to philosophy, not only in the list of topics of learning but also in the list of qualities required for any administrator. Therefore, he devotes a chapter to discuss the behavior of a sage like king and two other chapters conquering the organs i.e. *Rajarshi vrittam* and *Indriya jaya* respectively. This suggests that the administrators should have discipline. Acharya Kautilya not at all imposes renunciation. He says "one should enjoy his life without violating Dharma and Artha, and should not be devoid of pleasure".[12]

According to Kautilya the selection of ministers and allocation of departments to the selected officers should be very systematic. The basic qualities for a minister are enlisted in Arthasastra which are as follows –

Native of the country, Noble born, Able to restrain (the King) gently, Trained in Arts, Has the vision, Intelligent, Persevering, Dexterous, Eloquent, Bold, possessed of a ready wit, Energetic, Powerful, able to bear troubles, upright, friendly, Firmly devoted, Endowed with character, Endowed with strength, Healthy, Endowed with spirit, Devoid of rigidity, Devoid of fickleness, Amicable, Does not create enemity.

Now it is clear that an important position should not be given to the persons who do not possess such good qualities. Those who are inferior by qualities should be given the positions in accordance with their capacity of handling the things.

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Those who are endowed with all the above qualities have to undergo secret tests. This secret test is known as *Upadha* Which is fourfold. 1. *Dharmopadha* = Testing the loyality, 2. *Arthopadha* = Testing the person in financial matters, 3. *Kamopadha* = Test regarding the character of a person, 4. *Bhayopadha* = Test regarding the bravity.

The procedure is also described by Acharya Kautilya. After the four tests, those who are proved loyal should be appointed as Judges, proved upright should be employed in finance wing, got through *kamopadha* should be allotted the 'women welfare' department and those proved the bravity should be appointed as body guards to the king. Those proved honest by all tests, should be made councilors (Mantris). Those who are proved dishonest by every test should be employed in mines, forests and in factories.

Thus the pillars of the structure of the administration should be made strong so that it would not collapse. There is a clear distinction between Mantrins and Amatyas shown in Arthasastra. Amatya is a head of the particular department. Mantri is the member of cabinet who participates in deliberations.

Another important system to be followed by each ruler is to keep a watch over the employees. Acharya Kautilya discusses in detail the way royal income is misappropriated. A few examples are given here to understand the *sarvatomukhapratibha* of our author Kautilya. He describes the way royal income is misappropriated by the employees and also explains how to recover that misappropriated property from the employees. "All the undertakings are rooted in the treasury (Kosa), hence, one should look in to the financial

affairs"[14] – says Kautilya. He gives the list of the ways of embezzlement. They are – entering the first received (revenue) as received afterwards, showing the revenue received late as received earlier, to be carried out as not carried out, already carried out as not carried out and vice-versa so on. The details are given below.

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Shamasastry's Translation for the terms is as follows –

1. What is realized earlier is entered later on.
2. What is realized later is entered earlier.
3. What ought to be realized is not realized.
4. What is hard to realize is shown as realized.
5. What is collected is shown as not collected.
6. What has not been collected is shown as collected.
7. What is collected in part is entered as collected in full.
8. What is collected in full is entered as collected in part.
9. What is collected is of one sort, while what is entered is of another sort.
10. What is realized from one source is shown as realized from another.
11. Payable is not paid.
12. Not payable is paid.
13. Not paid in time.
14. Paid untimely.
15. Small gifts made large gifts.
16. Large gifts made small gifts.
17. Gifted is of one sort, entered as of another.
18. The real done is one while the person entered (in the register) as done is another.

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19. What has been taken into (treasury) is removed.
20. What has not been credited is shown as credited.
21. Raw materials (forest produce) that are not paid for are entered.
22. Those (the above) paid are not entered.
23. An aggregate is scattered in pieces.
24. Scattered items are converted into an aggregate.
25. Commodities of greater value are bartered for those of small value.
26. What is of smaller value is bartered for that of greater value.
27. Price of commodities enhanced.
28. Price of commodities lowered.
29. The year not in harmony with its months.
30. The months not in harmony with its days.
31. Inconsistency in the transactions.
32. Misrepresentation of the source of income.
33. Discrepancy regarding worksmen.
34. Discrepancy in representing the work turned out.
35. Inconsistency in dealing with fixed items.
36. Discrepancy in the quality of commodity.
37. Misrepresentation of prices of commodity.
38. Making use of false weights.
39. Making use of false measures.
40. Making use of false cubic measures (Bhajana).[15]

This description lays guide lines to check the concerned officers in various departments. The information is so relevant that these means of grabing the revenue are found used in present day system also.

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As stated by the author, the Arthasastra is composed not exclusively for Chandragupta Maurya but for the rulers in general. He has gone through all the sciences (related to the Administration) not only theoretically but also practically and then composed this treatise for the sake of Kings.[16]

Acharya Kautilya compares the employees dealing with the money matters to fish in the water. He says that as it is not possible to know the fish swallowing the water being under the water, so is the position of the employees which is difficult to know how they eat the royal income.[17]

He also explains how it is impossible not to swallow the revenue even a little like a drop of honey or poison on the tip of the tongue which enters into mouth without any effort and cannot be stopped. Thus Acharya Kautilya is aware of the human weaknesses and has a soft corner for them. Hence, if the offence is minor the punishment is also mild. His statement regarding the Justice is – The punishment should be in accordance with the offence.

In Arthasastra the most important place is given to the network of the department of spies. The activity of spies directly or indirectly runs throughout Arthasastra. The place of spies being the eyes of sovereignty the author has given a detailed picture of entire *guptacharavyavastha* with many branches which come under its perview.

Another important contribution of Acharya Kautilya through his magnumopus Arthasastra is bringing the law and order under control by checking the seducible and non-seducible people in one's own territory and also in neighbouring Kingdom. Probably the introduction of this topic is the need of the hour in India.

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This topic is discussed in two chapters under the headings ''स्वविषये कृत्याकृत्यपक्ष रक्षणम्'' (K.A. 1-13) – "Protection from the seducible and non-seducible in one's own state" and ''परिविषये कृत्याकृत्यपक्षोपग्रहः'' (K.A. 1-14) – winning over the seducible and non-seducible in enemy's state. (विषय = देश). In the chapter ''स्वविषये...'' Acharya explains how to satisfy the people, inculcate the patriotism in their minds. But in the latter one ''परिविषये....'' he has given the details of the people who resort to treacherous activities. These are called कृत्या (seducible) who easily undergo the influence of enemy kings. They are classified into four – 1. क्रुद्धवर्गः - the group of enraged, 2. भीतवर्गः - The group of frightened, 3. लुब्धवर्गः - Group of the greedy, 4. मानिवर्गः - Group of the proud.

The detailed description of the characteristics of all the above focus on the knowledge of human psychology of the statesman Acharya Kautilya. In any kingdom the people who are cheated, ill-treated, lost the property etc, become enraged towards the King. Those who commit illegal activities always feel frightened. The covetous people would like to grab from others. The people who have self respect cannot tolerate any sort of ill-treatment towards them. Hence, all such people are targeted by enemy kings to use them as tools to destroy their native-land. This is not only the problem of ancient times but of all the times. The terrorism, atrocities, crimes and all sorts of violences are rooted in the above reasons. Take the instances of Mahabharata or Ramayana or Kalhana's Rajatarangini which reveal the wicked polity played by the persons in key positions.

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Acharya Kautilya's vision and political thought paved the path for the rulers who would like to become a real king of the kingdom (राजा प्रजारञ्जनात्).

Before summing up, the attention may be drawn towards Kautilyan law which if implemented makes any kingdom a role model like Mauryan kingdom. Though it is a very vast field to discuss, a few points are worthy of mention here.

As mentioned earlier, those whose loyalty is proved are to be appointed as Judges and Magistrates. There are rules to be followed by the Judges. According to Kautilya "all the worldly affairs begin with marriage", "विवाहपूर्वो व्यवहारः" (K.A. 3-2-1). The speciality of Indian culture is its "family system". The "गृहस्थाश्रम" is the foundation for all the asramas because, they depend on this asrama. Even Mahabharata gives importance to गृहस्थाश्रम only. If a family gets disturbed then the society gets disturbed and then the village, state and country so on.

This is a chain for adversity or prosperity. Therefore, the marriage system should be perfect. There were no child marriages in ancient India. Not even against the will either of bride or groom. No deceitful marriages. Dowry to the men was not introduced. It was to the bride which is known as Kanyasulka which is considered as illegal by Acharya Kautilya. For all the details one should read Arthasastra. The widow marriage was allowed. To conclude this introduction an important sloka for women welfare by Acharya Kautilya is quoted below.

"नीचत्वं परदेशं वा प्रस्थितो राजकिल्बिषी।
प्राणाभिहन्ता पतितस्त्याज्यः क्लीबोऽपि वा पतिः॥"

(K.A. 3-2-48)

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"If a husband either is of bad character, or is gone abroad for a long time, or has become a traitor to the King (country), or is endangering to life (of wife), or has become an outcaste (by the society), or is an impotent, he may be abandoned by his wife."

With this statement it is clear that ancient law givers never forced a woman to follow her husband even if he is a wicked or traitor etc. This has happened probably after the invasion of foreigners. Therefore, before throwing blame on ancient Indian culture one should go through the literature of ancient times and should use one's own intellect before coming to conclusion.

Kautilya's Arthasastra is a great treatise which shows a flowery path to human beings. It is indeed a sastra which instructs the people.

The Kautilyan policy should be followed by every ruler which states –

"प्रजासुखे सुखं राज्ञः प्रजानां च हिते हितम्।
नात्मप्रियं हितं राज्ञः प्रजानां तु प्रियं हितम्।।"

(K.A. 1-19-34)

"The happiness of the king lies in the happiness of the people, their welfare is his welfare and whatever is pleasing to the people it is good for him, not the thing good that which pleases him."

"धर्मो रक्षति रक्षितः"

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1. ''महापद्मः। तत्पुत्राश्चैकं वर्षशतमवनीपतयो भविष्यन्ति नवैव। तान्नन्दान्कौटिल्यो ब्राह्मणस्समुद्धरिष्यति। तेषामभावे मौर्याश्च पृथिवीं भोक्ष्यन्ति। कौटिल्य एव चन्द्रगुप्तं राज्येऽभिषेक्ष्यति। तस्यापि पुत्रो बिन्दुसारो भविष्यति। तस्याप्यशोकवर्धनः।

2. यस्याभिचारवज्रेण वज्रज्वलनतेजसः।
पपात मूलतश्श्रीमान्सुपर्वा नन्दपर्वतः।। Nitisara - I - 4
एकाकी मन्त्रशक्त्या यशश्शक्त्या शक्तिधरोपमः।
आजहार नृचन्द्राय चन्द्रगुप्ताय मेदिनीम् ।। Ibid - 5
नीतिशास्त्रामृतं धीमानर्थशास्त्रमहोदधेः।
समुद्दध्रे नमस्तस्मै विष्णुगुप्ताय वेधसे।। Ibid - 6

3. ''दृष्ट्वा विप्रतिपत्तिं बहुधा शास्त्रेषु भाष्यकाराणाम्।
स्वयमेव विष्णुगुप्तश्चकार सूत्रं च भाष्यं च।।''
K.A. 15-1-concluding verse

येन शास्त्रं च शस्त्रं च नन्दराजगता च भूः ।
अमर्षेणोद्धृतान्याशु तेन शास्त्रमिदं कृतम्।। K.A. 15-1-381

4. ''पृथिव्या लाभे पालने च यावन्त्यर्थशास्त्राणि पूर्वाचार्यैः प्रस्थापितानि प्रायशस्तानि संहृत्यैकमिदमर्थशास्त्रं कृतम्।'' K.A. 1-1-1

5. ''मनुष्याणां वृत्तिरर्थः, मनुष्यवती भूमिरित्यर्थः, तस्याःपृथिव्याः लाभपालनोपायः शास्त्रमर्थशास्त्रमिति।'' K.A. 15-1-1

6. ''बुद्धिशस्त्रः प्रकृत्यङ्गो घनसंवृतिकञ्चुकः ।
चारेक्षणो दूतमुखः पुरुषः कोऽपि पार्थिवः।।'' Magha 2-84

7. a) विनयाधिकारिकम् b) अध्यक्षप्रचारः
c) धर्मस्थीयम् d) कण्टकशोधनम्
e) योगवृत्तम्
f) मण्डलयोनिः g) षाड्गुण्यम्
h) व्यसनाधिकारिकम् i) अभियास्यत्कर्म

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j) सांग्रामिकम् k) संधिवृत्तम्

l) आबलीयसम् m) दुर्गलम्भोपायः

n) औपनिषदिकम् m) तन्त्रयुक्तिः

8. "1. कर्मणामारम्भोपायः, 2. पुरुषद्रव्यसम्पत्, 3. देशकालविभागः, 4. विनिपातप्रतीकारः, 5. कार्यसिद्धिः" K.A. 1-15-42

9. दण्डः शास्ति प्रजाःसर्वा, दण्डएवाभिरक्षति ।
दण्डः सुप्तेषु जागर्ति, दण्डं धर्मं विदुर्बुधाः।। M.S. 7-18

10. ''आन्वीक्षिकीत्रयीवार्तानां योगक्षेमसाधनो दण्डः, तस्य नीतिर्दण्डनीतिः, अलब्धलाभार्था लब्धपरिरक्षणी रक्षितविवर्धनी वृद्धस्य तीर्थेषु प्रतिपादनी च। तस्यामायत्ता लोकयात्रा।
K.A. 1-4-3,4

11. ''धर्माधर्मौ त्रय्यामर्थानर्थौ वार्तायां नयापनयौ दण्डनीत्यां बलाबले चैतासां हेतुभिरन्वीक्षमाणा लोकस्योपकरोति व्यसनेऽभ्युदये च बुद्धिमवस्थापयति प्रज्ञावाक्यक्रियावैशारद्यं च करोति।''
K.A. 1-2-10,11

12. ''धर्मार्थाविरोधेन कामं सेवेत। न निःसुखः स्यात्''
K.A. 1-7-3

13. जानपदोऽभिजातः स्ववग्रहः कृतशिल्पश्चक्षुष्मान्प्राज्ञो धारयिष्णुर्दक्षो वाग्मी प्रगल्भः प्रतिपत्तिमानुत्साहप्रभावयुक्तः क्लेशसहः शुचिर्मैत्रो दृढ़भक्तिः शीलबलारोग्यसत्त्वयुक्तः स्तम्भचापलहीनः संप्रियो वैराणामकर्तेति अमात्यसम्पत् । K.A. 1-9-1

14. कोशपूर्वाः सर्वारम्भाः। तस्मात् पूर्वं कोशमवेक्षेत।
K.A. 2-8-1,2

15. 1) पूर्वं सिद्धं पश्चात् अवतारितम्
2) पश्चात् सिद्धं पूर्वं अवतारितम्
3) साध्यं न सिद्धम्
4) असाध्यं सिद्धम्
5) सिद्धं असिद्धं कृतम्

6) असिद्धं सिद्धं कृतम्
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7) अल्पसिद्धं बहुकृतम्
8) बहुसिद्धं अल्पं कृतम्
9) अन्यत् सिद्धं अन्यत्कृतम्
10) अन्यतः सिद्धं अन्यतः कृतम्
11) देयं न दत्तम्
12) अदेयं दत्तम्
13) काले न दत्तम्
14) अकाले दत्तम्
15) अल्पं दत्तं बहुकृतम्
16) बहुदत्तं अल्पं कृतम्
17) अन्यत् दत्तं अन्यत् कृतम्
18) अन्यतो दत्तं अन्यतः कृतम्
19) प्रविष्टं अप्रविष्टं कृतम्
20) अप्रविष्टं प्रविष्टं कृतम्
21) कुप्यमदत्तमूल्यं प्रविष्टम्
22) दत्तमूल्यं न प्रविष्टम्
23) संक्षेपो विक्षेपः कृतः
24) विक्षेपः संक्षेपः कृतः
25) महार्घं अल्पार्घेण परिवर्तितम्
26) अल्पार्घं महार्घेण परिवर्तितम्
27) समारोपितः अर्घः
28) प्रत्यवरोपितः अर्घः
29) संवत्सरो मासविषमः कृतः
30) मासो दिवसविषमः कृतः
31) समागमविषमः
32) मुखविषमः
33) कार्मिकविषमः

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34) निर्वेतनविषमः

35) पिण्डविषमः

36) वर्णविषमः

37) अर्घविषमः

38) मानविषमः

39) मापनविषमः

40) भाजनविषमः

16. ''सर्वशास्त्राण्यनुक्रम्य प्रयोगमुलभ्य च।
कौटिल्येन नरेन्द्रार्थे शासनस्य विधिः कृतः।। K.A. 2-10-63

17. ''मत्स्या यथान्तःसलिले चरन्तो ज्ञातुं न शक्याः सलिलं पिबन्तः।
युक्तास्तथा कार्यविधौ नियुक्ता ज्ञातुं न शक्या धनमाददानाः।।
K.A 2-9-33

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KAUTILYA
The Principles of Administration

" 'Whether the time is the factor for the King or the King is the factor for time' such doubt should not be there because the King is the main factor for the time."

Kalo va karanam Rajnah Raja va kalakaranam,
Iti te samsayo mabhudraja kalasyakaranam. MBH

Thus stated in Mahabharata. There is no doubt the king is the maker of the age. The wellbeing of the state and people depend upon the king. Therefore, the king should be acquainted with the science of administration. Not only theory part but also the practical for good Administration. Therefore, "Vriddha Seva" is given importance. Vriddha seva means knowing the things from senior people. The discussion on important political matters occur in Ramayana and Mahabharata where the councilors like Vasistha, Senior persons like Bhisma advise the rulers.

Among the ancient political thinkers Kautilya occupies an important place whose treatise is a systematic work on polity that has come down to us. It is stated by the author himself that the Arthasastra is composed after a thorough study and practical observation of earlier sastras available in his time.[1] It is also stated by Kautilya that the work was composed by him for the sake of kings.[2] At the outset of his work he gives a list of the contents of his work and explains the main branches of knowledge. In that

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context he lays stress upon the science of Administration and states that 'danda' the scepter, the rod of administration is the one which is the means of remaining three branches of knowledge Anvikshiki, Trayi and Varta. The science which teaches how to wield the rod is Dandaniti with which the four fold activity of the administration is to be taken care of. The four fold activity is–

1. acquiring the things that are not acquired.
2. preservation of the things acquired
3. improving the things acquired
4. distribution of the things to proper recipients.[3]

The entire worldly life is based on the above things.[4] Therefore, one who desirous of maintaining this worldly life in a systematic manner, should hold danda, the scepter. In this context Kautilya quotes the views of earlier Acaryas and expresses his own view at the end. "The administrator should ever hold danda, because, there is nothing else can bring the people under control than danda"[5] says the Acaryas. Kautilya says "No! The aggressive ruler creates agony in the subjects and the mild one will not be regarded by them. One who employs the scepter in a proper manner will be honoured.[6]

The king (Administrator) cannot look into the affairs all alone. He, with the help of assistants should carry out the administration. With this view Kautilya devotes one complete Book (Adhikaranam) to explain the machinery of administration. The king. preceptor, minister and other officials, their qualities, their selection etc, are described in detail in this 'Adhikarana' under the title 'Vinayadhikarikam' (The topic of training).

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The king should at first appoint such ministers and preceptors who could control him by checking his time table and whose advice is the boundary to him.[7] 'Chaya' is the calculating shadow which was one of the time knowing factors in ancient India. Similarly the water or sand passed through a tube was also one of the time calculators in those days. If the king is overcoming the time schedule the preceptors or ministers should remind him by showing the above mentioned ones.

The necessity of the Amatyas is thus explained by Kautilya - "The royal affairs are three fold-direct, indirect and inferred". Directly seen by the king are direct, known through others are indirect, inferred by seeing the works done are inferred. Due to the simultaneity of the affairs at different places, the assistance of the ministers is a must for the smooth, timely and effective administration.[8] Therefore, it is stated by Kautilya "the kingship is maintained with the help of ministers, because single wheel cannot pull the cart. Therefore, the king should appoint the ministers and should take their opinions in administrative affairs".[9]

Mantrin (like Chief or Prime Minister) and purohita are the Chief Advisers to the King. The appointment of all the ministers and officers is to be carried out with the assistance of these two. The importance of the Purohita and Mantri is thus stated by Kautilya – "The Kshatriya power enhanced by the preceptor (Vedavit), sanctified by the spells of the councilors and well equipped with the weapons in the form of compliance with the science, will remain victorious ever unconquered".[10]

There is a procedure of selection of ministers to various positions described in detail by Kautilya. The administration

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totally depends upon the administrative officers. Hence, they are to be thoroughly examined. There are certain basic qualities which are most important for the ministers. Some of these are considered even today. They are -native born, noble etc. But apart from these qualities there are special qualities according to which the position should be assigned to them. The information available in Arthasastra may be understood in following way - At first the candidates having the basic qualities should be appointed without allotting any special wing to them. The positions are to be assigned only after the secret tests are conducted to know their character in detail. The tests are Dharmopadha, Arthopadha, Kamopadha and Bhayopadha. The persons proved loyal through Dharmopadha should be appointed as Judges in civil and criminal courts. Those who are proved upright should be appointed in the departments dealing with money, like Director of Stores and Controller of Revenue etc. Those who get through Kamopadha are to be appointed as incharges of places of recreation outside as well as inside (the palace). Those who are proved courageous should be appointed near the king (as body guards, etc.). Those who are proved honest by all tests should be appointed as councilors.[11] Those who failed in all the tests should be appointed in the mines and other departments where the work is involved with risk.[12] Under no circumstances the king should get himself directly involved in all such tests.

This is the structure of administrative machinery as depicted by Kautilya. All the administrative posts in various departments should be assigned to the persons with their qualities. Now, the administration depicted in K.A. may be mainly classified in to three, as shown in the table.

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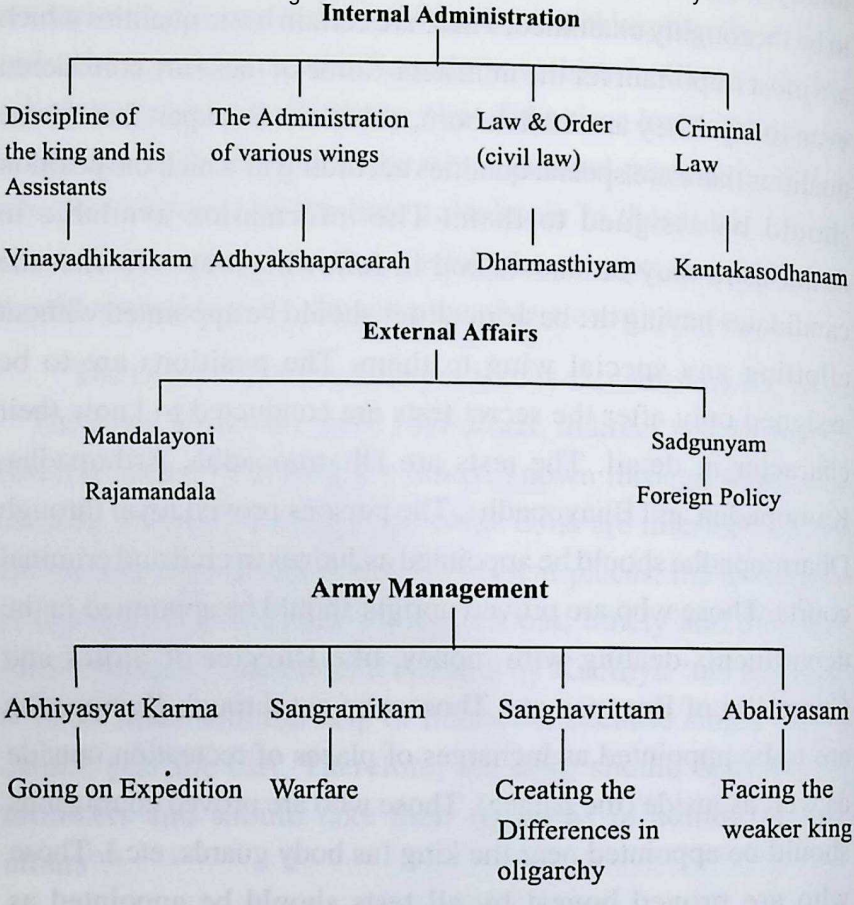

The subject matter discussed in Arthasastra is as follows:-

A. Books (Adhikaranas) 1 to 5 Vinayadhikarikam, Adhyaksha Pracara, Dharmasthiyam, Kantakasodhanam, Yogavrittam - deal with Internal administration.

B. Books 6 and 7 Mandalayoni, Sadgunyam deal with foreign policy. It is very interesting to note that a parallel line may be drawn between these chapters and panchatantra. Panchatantra has chosen only foreign policy the knowledge of which is a must for the kings.

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C. Books 9 to 12 Abhiyasyatkarma, Sangramikam, Sanghavrittam, Abaliyasam deal with Army management and war strategy.

D. Books 13 and 14 Durgalambhopaya, Aupanisadika deal with suppression of enemies by Other means than the war.

15th Book deals with the Yuktis, devices used in this sastra.

Kautilya has laid principles for each and every administrative officer and his subordinates, first for the king, then for other chief officials, employees and citizens.

About the kingship he says that an indisciplined should not be installed on the throne even if it is the prince that too only son of the king.[13] In such cases let the state be ruled by the guildes.[14] Because the well being of the subjects is most important.

The king should have a perfect schedule. It is described in detail in the 19th chapter of 1st Adhikarana. "The king should be ever active, then only the employees would do the things in a proper way. If the king is negligent the subjects too follow him and spoil all royal affairs. Therefore, at first he should keep himself active"[15] says Kautilya.

Second Adhikarana 'Adhyakshapracara' which completely deals with Administration, begins with the establishment of city (capital city) and allotment of lands to various people. There are head quarters of 800,400,200 to 100 villages and respectively known as Sthaniya, Dronamukha, Kharvatika and Sangrahana.

While allotting the lands Kautilya says "the Agricultural land is to be allotted to a person for his life time. It should not be heriditory.[16] This is the most important point to be noted. India

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being the 'Agricultural' country the lands should not be wasted. According to Kautilya no lands should be left untilled. All the arable lands are to be tilled. Keeping the lands without tilling, the possessors of the land should make good the loss to the treasury. R.P.Kangle comments on it "waste land being the property of the government it should be reverted to the state on the death of the donee".

The lands should be allotted to priests, preceptors, chaplains and vedic scholars, exempt from taxes which may be passed to their heirs also.[17] The lands should be allotted to the heads of various departments, other officers without the right of sale or mortgage.[18] Non-agricultural lands are to be disposed for animal grazing etc. The chapter dealing with this is called 'Bhumichidrapidhanam' (coverage of the loopholes of the land). Even the barren lands should be properly utilized.

The top rank officers are Sannidhata and samaharta. The duty of sannidhata is to take care of all the goods and products. Kosagara, Kosthagara etc, are under his control. He carries out the work with the officers or superintendents of the departments. The main principle here is the superintendent of a particular department should either be endowed with the subject knowledge or be assisted by the experts in the concerning subject.[19]

'Samaharta' is the collector of entire revenue. Many departments are under his control. Estimate of Income, expenditure, Budget etc, are under the perview of this officer.

The important duty of the administrator is to check the work of the employees at their working places. "The tendency of the men is like to that of horses"[20] says Kautilya. They behave in a different way when the work is assigned to them. He has

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also stated that "Arthasastra is a small encyclopaedia of Ancient Indian worldly affairs". Here are two slokas comparing the nature of human beings to fish in the water, and birds in the sky.[21] The method of controlling them is described in one sloka.[22] The king should make the positions permanent to those who do not grab the royal income but increase the treasury with sincere work.[23] There is a chapter 'Samudayasya Yuktapahritasya pratyanayanam' which explains how to recover the royal income misappropriated by the officers. In this context Kautilya gives a list of 40 ways of misappropriation".[24]

The officers who are sincere are to be honoured. Kautilya says "The administrator should forgive a minor offence, should be content even with a small revenue and should reward the officer properly when the benefit is great.[25] Thus the king who sees that no one transgresses the rule, varnasrama is protected well and Trayi is regarded would ever prosper.[26]

Thus "According to Kautilya the main duty of the Administrator is to lead the kingdom in such a way that all the subjects would be happy and matsyanyaya would not prevail"[27]. ("Prajasukthe sukham Rajnah……")

Therefore, it may be concluded with slokas of Kautilya which stress on the duty of the king.[28]

"For the King the vow (vrata) is activity, sacrifice (yajna) is administration, the fee (Dakshina) is impartiality and initiation (Deeksha) is the coronation."

"The happiness of the King lies in the happiness of his subjects, the benefit of the people is his benefit and no personal pleasure is good for the King but the pleasure of the subjects is good for the King (kingdom)."

Footnotes:

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1. यावन्त्यर्थशास्त्राणि पूर्वाचार्यैः प्रस्थापितानि प्रायशस्तानि संहृत्यैकमिदमर्थशास्त्रं कृतम् । K.A. 1-1-1

2. सर्वशास्त्राण्यनुक्रम्य प्रयोगमुपलभ्य च ।
कौटिल्येन नरेन्द्रार्थे शासनस्य विधिः कृतः ॥
K.A. 2-10 concluding verse

3. आन्वीक्षिकीत्रयीवार्तानां योगक्षेमसाधनो दण्डः ।
तस्य नीतिर्दण्डनीतिः । K.A. 1-4-3

4. अलब्धलाभार्था, लब्धपरिरक्षणी, रक्षितविवर्धनी, वृद्धस्य तीर्थेषु प्रतिपादनी च ।
तस्यामायत्ता लोकयात्रा । K.A. 1-4-3,4

5. तस्माल्लोकयात्रार्थी नित्यमुद्यतदण्डः स्यात् ।
न ह्येवं विधं वशोपनयनमस्तिभूतानां यथा दण्डः । इत्याचार्याः।
K.A. 1-4-5,6

6. नेति कौटिल्यः । तीक्ष्णदण्डोहि भूतानामुद्वेजनीयो भवति ।
मृदुदण्डः परिभूयते । यथार्हदण्डः पूज्यते । K.A. 1-4-9,10

7. मर्यादां स्थापयेदाचार्यानमात्यान् वा, य एनमपायस्थानेभ्यो वारयेयुः, छायानालिकाप्रतोदेन वा रहसि प्रमाद्यन्तं अभितुदेयुः।
K.A. 1-7-8

8. प्रत्यक्षपरोक्षानुमेया हि राजवृत्तिः । स्वयंदृष्टं प्रत्यक्षम् । परोपदिष्टं परोक्षम् । कर्मसु कृतेनाकृतावेक्षणम् अनुमेयम् । यौगपद्यात्तुकर्मणामनेकत्वादनेकस्थत्वाच्च देशकालात्ययो माभूदिति परोक्षमयात्यैः कारयेत् । K.A. 1-9- 4 to 8

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9. सहायसाध्यं राजत्वं चक्रमेकं न वर्तते ।
कुर्वीत सचिवांस्तस्मात्तेषां च शृणुयान्यतम् ॥ K.A. 1-7-9

10. ब्राह्मणेनैधितं क्षत्रं मन्त्रिमन्त्राभिमन्त्रितम् ।
जयत्यजितमत्यन्तं शास्त्रानुगमशस्त्रितम् ॥ K.A. 1-9-11

11. तत्र धर्मोपधाशुद्धान् धर्मस्थीयकण्टकशोधनेषु कर्मसु स्थापयेत् .....
शुद्धान्समाहर्तृसन्निधाननिचयकर्मसु, कामोपधाशुद्धान् बाह्याभ्यन्तर विहाररक्षासु, भयोपधाशुद्धान् आसन्नकार्येषु राज्ञः। सर्वोपधाशुद्धान् मन्त्रिणः कुर्यात् । K.A. 1-10-13,14

12. सर्वत्राशुचीन् खनिद्रव्यहस्तिवनकर्मान्तेषूपयोजयेत् ।
K.A. 1-10-15

13. न चैकपुत्रमविनीतं राज्ये स्थापयेत् । K.A. 1-17-41

14. कुलस्य वा भवेद्राज्यं कुलसंघो हि दुर्जयः ।
अराजव्यसनाबाधः शश्वदावसति क्षितिम् ॥ K.A. 1-17-53

15. राजानमुत्थितमनूत्तिष्ठन्ते भृत्याः । प्रमाद्यन्तमनुप्रमाद्यन्ति ।
कर्माणिचास्य भक्षयन्ति । तस्मादुत्थानमात्मनः कुर्वीत ।
K.A. 1-17-.....

16. करदेभ्यः कृतक्षेत्राण्यैकपुरुषिकाणि प्रयच्छेत् । K.A. 2-1-8

17. ऋत्विगाचार्यपुरोहितश्रोत्रियेभ्यो ब्रह्मदेयान्यदण्डकराणि ।
K.A. 2-1-7

18. अध्यक्षसंख्यायकादिभ्यो ... विक्रयाधानवर्जानि । K.A. 2-1-7

19. K.A. 2-11-1, 2-12-1

20. अश्वसधर्माणो हि मनुष्या नियुक्ताः कर्मसु विकुर्वते । K.A. 2-...

21. मत्स्या यथान्तःसलिले चरन्तो, ज्ञातुं न शक्याः सलिलं पिब्न्तः

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युक्तास्तता कार्यविधौ नियुक्ता, ज्ञातुं न शक्या धनमादधानाः ॥
अपि शक्या गतिर्ज्ञातुं पततां खे पतत्रिणाम् ।
न तु प्रच्छन्न भावानां युक्तानां चरतां गतिः ॥ K.A.2-9-33,34

22. आस्रावयेच्चोपचितान् विपर्ययेच्य कर्मसु ।
यथा न भक्षयन्त्यर्थं भक्षितं निर्वमन्ति वा ॥ K.A. 2-9-35

23. न भक्षयन्ति ये त्वर्थान् न्यायतो वर्धयन्ति च ।
नित्याधिकाराः कार्यास्ते राज्ञः प्रियहिते स्ताः ॥ K.A.2-9-36

24. K.A. 2-8-20

25. अपराधं सहेताल्पं तुष्येदल्पेऽपि चोदये ।
महोपकारं चा.....क्षं प्रग्रहेणाभिपूजयेत् ॥ K.A. 2-7-41

26. तस्मात्स्वधर्मं भूतानां न व्यभिचारयेत् ।
व्यवस्थितार्यमर्यादः ।

27. K.A. 1-19-34

28. राज्ञो हि व्रतमुत्थानं यज्ञः कार्यानुशासनम् ।
दक्षिणा वृत्तिसाम्यं तु दीक्षा तस्याभिषेचनम् ॥
प्रजासुखे सुखं राज्ञः प्रजानां च हिते हितम् ।
नात्मप्रियं हितं राज्ञः प्रजानां तु प्रियं हितम् ।
K.A. 1-19-33,34

Abbreviations:

C.S. – Carakasamhita

K.A.– Kautilya's Arthasastra

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Kautilya on Governance

The Arthasastra of Kautilya is a great work on Politics. The author who is also known as Canakya and Visnugupta belongs to 3rd cen. B.C. He was the person who over threw the Nanda dynasty and placed the great Maurya Chandragupta on the throne. Candragupta Maurya became famous because of Kautilya. The implication is that he became so famous and could succeed in his rule by following the rules of administration laid by Kautilya in his Arthasasrtra.

This Arthasastra deals completely with the administration. In the opening sutra itself the author says that this book has been composed by him for the acquisition and maintenance of the earth.[1] Labha is acquiring territory from enemies; Palana is the protection of the earth which is acquired. Kautilya has composed this sastra after the thorough study of earlier works on this subject. He himself says this in the opening sutra of his work and also he says, having seen innumerable errors in commentaries on earlier works, he himself has written the Sutra and Bhasya for his work.[2] The main aim of this work is 'Narendrarthe' (for the sake of the king), that is to guide the king in administration.

According to Kautilya the Vidyas are four. Anviksiki, Trayi, Varta, and Dandaniti.[3] The well being and progress of first three Vidyas depend on Dandaniti. Danda is a rod of administration, which brings people under the control of the king. In the absence of 'Danda' the society would be in chaos and confusion and Matsyanyaya (Law of fish) would prevail.

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Therefore, the administrator should ever hold Danda says, Kautilya - But how the administrator should be? He neither should be cruel nor should be mild. He should give the punishment in accordance with the nature of offence and should rule the kingdom in a proper way. At first the administrator should be possessor of noble qualities. A wicked person should never be given the royal post. An undeserving king should be overthrown. That is what Kautilya has done in the case of Nandas. Therefore, the king should seek his happiness in the well-being of his subjects. He should look after the royal affairs with the help of his secret agents. The person wishing to see the king in connection with his affairs should be allowed without any restriction. Otherwise, there is a possibility of the affairs being spoiled by the mediators.

The king should have control over his senses. He should protect himself from his internal and external enemies. No partiality should be shown even to the royal relations. If there is any harm from the queen or the prince, she or he should be punished. After protecting himself the king should appoint an advisory of the council, and with the help of that council he should look into the royal affairs.

The Selection of Ministers

Unlike the current practice, in Kautilya's time, even the ministers were to be interviewed. According to Kautilya the persons who are tested by employing Dharmopadha, Arthopadha, Kamomadha and Bhayopadha only should be given the Ministerial posts. For, ministerial post the person should be a native of the kingdom, highborn, well trained in arts, having foresight and memory, wise, bold, eloquent, self-confident, intelligent, enthusiastic, dignified, pure in character, affable,

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devoted to work, free from excitement, hatred and enmity. All these qualities are called 'Amatya sampath'. The person possessing half of these qualities comes under middle rank and he who possesses one quarter of these qualities, under lower rank.[4]

All qualities should be tested by the concerned authorities. The affairs of administration are of three types Visible, invisible and inferential.[5] Those which are directly known by the king himself are visible, those which are known through his employees are invisible and those which are inferred are inferential. All administrative affairs do not happen simultaneously. They vary in form and pertain to distant and different localities. So, the administrator needs the help and assistance of his ministers to carry out these affairs. Then how to appoint the ministers, who are one of saptangas and how to test them ? The procedure is as follows -

At first the king and the royal priest should plan for it. According to that plan, the king should insist that the royal priest teaches the vedas to an outcaste or officiates in a sacrificial performance undertaken by the same kind of person. When the priest refuses to do so, he should be dismissed from his post. Then he, through the spies, should instigate each minister (The candidates for the ministerial posts, who would be appointed after the test), and tell each one of them that 'The King is unrighteous, so let us install another righteous king in his place'. The person who agrees with these words would be considered as non-loyal and he who does not agree with these words would be considered as loyal. This test is called *Dharmopadha*.[6]

The second test *Arthopadha* is through the money. For this type of test the king should dismiss a commander of the army

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under the pretext of corruption and the dismissed commander should instigate each one of the ministers, by offering the money to kill the king. The person who does not agree would be considered as upright.

The third test is *Kamopadha*. In this test a woman spy, under the guise of an ascetic and highly esteemed in the harem by the king, should allure each minister saying that the queen is fond of him and she asked him to come to her harem. He who does not agree would be considered pure.

The fourth test is *Bhayopadha*. All ministers should be taken out under the pretext of sailing on commercial vessel. Then a spy in the guise of a fraudulent disciple, pretending to have suffered imprisonment, should approach each one of the ministers and should instigate the ministers to kill the king because of his bad character. Those who do not agree with him would be considered loyal.[7]

Thus these tried ministers should be given the respective posts. Those who are proved loyal by the Dharmopadha should be appointed as Judges in civil and criminal courts. Those who are proved up-right by the Arthopadha should be appointed as revenue and financial ministers. Those who are proved pure by the Kamopadha should be appointed to look after the affairs of harem and pleasure trips, which are connected with women's affairs. Those who are proved loyal by the Bhayopadha should be appointed as the bodyguards to the king. Those who have succeeded in all kinds of tests should be appointed as councillors; and those who have failed in all kinds of tests should be appointed in the affairs connected with mines, forests and manufactories which involve risk. But in all such appointments the king should never be the media. He should carry out all this with the help of

spies.[8] In Public domain. Digitization Muthulakshmi Research Academy

Thus according to Kautilya, after appointing the ministers, the king should appoint the officers, superintendents in various departments with the help of his council. For the above mentioned posts also, those who possess ministerial qualities should be appointed. They should be given various posts in accordance with their individual capacity. They should be frequently examined while they are engaged in their work. For, Kautilya says men are naturally fickle-minded and are like the horses at work. As the horses look quiet when they are tied, but would change their nature while they are employed in work, the men though they look quiet in their appearance, their original tendency would be seen in their work. Hence, the administrator should have a notice about their work, place, and time. The employer should make them do their work without dissention and without any concert among them. For, in concert they eat up the revenue together and in disunion, they spoil the work. The employees should not undertake any affair without informing his employer, except in case of imminent dangers. Those who do their duties correctly and in time should be rewarded.[8]

Misappropriation

The employees who misappropriate the public money should be detected and punished, when they are proved guilty. Here Kautilya gives some clues to find out the employees, who misappropriate public money.

He explains, one who shows the revenue less, eats up the public money. Sometimes there is a possibility of doing so due to negligence, ignorance etc. Hence, he should be punished in accordance with the nature of the offence. One who doubles the

government income, he eats the subjects. That means he collects excess from the people than the fixed ones. Even if he gives it to the royal treasury he should be prevented to do so, and punished. He who does not spend, where it should be spent, eats from labour. Hence, the superintendent of each department should thoroughly scrutinise the real amount of the work done, the income and expenditure in detail.[10]

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According to Kautilya the misappropriation done not only by the employees, but also by the house-holders must be punished.

There are three types of misappropriators in society. They are 1. Mulaharah, 2. Tadatvikah and 3. Kadaryah. One who spends lavishly the hereditary property is Mulaharah. One who spends whatever he earns is Tadatvikah and one who does not spend his own but spends others' property is Kadaryah.[11]

These three types of persons cause disturbance in society. The first one by spending the hereditary property for himself would harm his dependants or remaining family members. The second one, without taking care of his family's future, spends whatever he earns and the third one saving his money, squeezes the same from poor. These three types of persons are harmful to society. Hence, they also should be brought under control through punishment (Sceptre).

The causes for decrease in Treasury

There are some causes for the decrease in Treasury which are the negligence etc, of employees and some are - misappropriation etc, by the employees.

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The causes for decrease in treasury are as follows :

1. Pratibandhah, 2. Prayogah. 3. Vyavaharah,
4. Avastarah, 5. Parihapanam, 6. Upabhogah,
7. Parivartanam, 8. Apaharah.

1. Failure to collect the revenue and failure to credit it into the treasury is '*Pratibandha*'.
2. Lending the government goods without the permission of concerned authorities is '*Prayoga*'.
3. Carrying on trade by Government money is "Vyavahara'.
4. Failure to maintain the accounts in a proper way is '*Avastara*'.
5. Causing a diminution of the revenue fixed and increasing the expenditure sanctioned is '*Parihapanam*'.
6. Enjoying the government goods by oneself or allowing others to enjoy the same is '*Upabhoga*'.
7. Appropriating the Government goods by substituting other goods is '*Parivartana*'.
8. Failure to credit the balance received, failure to pay the expenses that are shown in the records is '*Apahara*'.

Thus the employees cause the decrease in the government (royal) treasury. Hence they should be closely watched.[12]

There are eight reasons for committing the above mentioned offences. They are due to the weakness of human-beings. The reasons are as follows :

1. Ajnana, (ignorance)
2. Alasya, (laziness)

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3. Pramada (negligence)
4. Bhaya (timidity)
5. Kama (passion or selfishness)
6. Krodha (anger or enemity)
7. Darpa (pride)
8. Lobha (covetedness)[13]

Those who are devoid of these weaknesses do their duties without fail.

Hence, the administrator should make the employees do their duties sincerely. Here Kautilya has given two comparisons to the employees who deal with the money.

He says, that the position of officers, dealing with money is like a person, on whose tip of the tongue there is honey or poison. In such condition they swallow the government money without the knowledge of the higher officers as the poison or honey enters into the mouth from the tip of the tongue. Amidst the money, they may swallow the money as a fish in the water swallows the water.[14]

So, these employees should be closely watched. Treasury is important because, all undertakings are dependent first on treasury.[15] Hence the administrator should avoid fraud in treasury. But all this is possible when the administrator is pious, righteous, wise and self controlled.

In modern administration the prime minister and chief ministers play an important role, being the administrators of country and state respectively. Hence, at first they should be possessors of all the ministerial qualities (which are mentioned in the beginning).

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Footnotes:

1. पृथिव्या लाभे पालने च यावन्त्यर्थशास्त्राणि पूर्वाचार्यैः प्रस्थापितानि प्रायशस्तानि संहृत्यैकमिदमर्शशास्त्रं कृतम् । K.A. 1-1-1-
2. दृष्ट्वा विपतिपत्तिं बहुधा शास्त्रेषु भाष्यकाराणाम् ।
   स्वयमेव विष्णुगुप्तश्चकार सूत्रं च भाष्यं च ॥
   K.A. 15-1-Concluding verse
3. चतस्र एव विद्या इति कौटिल्याः । K.A. 1-2-8
4. K.A. 1-9-1,2
5. प्रत्यक्षपरोक्षानुमेया हि राजवृत्तिः । K.A. 1-9-4
6. K.A. 1-10-2 to 4
7. K.A. 1-10-5 to 12
8. K.A. 1-10-13 to 15
9. K.A. 2-9-1 to 3
10. K.A. 2-9-13 to 19
11. K.A. 2-9-20 to 24
12. K.A. 2-8-4 to 16
13. K.A. 2-7-10
14. K.A. 2-9-32,33
15. कोशपूर्वाः सर्वारम्भाः । K.A. 2-8-1

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Kautilya on Management

"The Kingship (The Administration) cannot be successfully carried out without the help of the assistants. One wheel (of the chariot) does not move (the chariot). Therefore, the king (Administrator) should appoint the secretaries and should listen to them (their views)"[1] states Acarya Kautilya.

Acarya Kautilya explains the importance of the officers without whom the royal machinery does not function. Though the King in ancient India mostly was a monarch, he was never an autocrat. He had to follow the strict discipline to be model to his subjects. Hence, Kautilya explains the behaviour of a saint-like king in a chapter entitled "Rajarsivrttam".

The duties of a King depicted in Arthasaastra may be well applied to the duties of an Administrator. Similarly the term "*Amaatya*" in Arthasaastra and in Sanskrit means the companion or the assistant to the king. Therefore, the royal machinery may be discussed taking the term to an Administrator. Thus now the discussion moves towards the royal affairs. The royal affairs are threefold direct, indirect and inferred. The Administrator cannot look into the affairs directly because it is not possible to reach each corner of his domain. The royal affairs are of such nature that many affairs simultaneously need his attention. In such cases too he cannot do justice to all the affairs. Therefore, the Administrator has to take the help of efficient officers.[2]

These experts who carry out the activities are termed as managers in the modern terminology. Before going to discuss

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the topic "*Kautilya on Management*" it would be proper to have a clear understanding of "What is *Management*" according to modern thinkers. There is a distinction between the administration and management. For example, the administration is concerned with planning and organizing whereas the management is concerned also with motivating and controlling the functions.

Henri Fayol defines the management "To manage is to forecast, to plan, to organize, to command, to co-ordinate and to control".[3]

According to E.F.L. Breach, "*Management* is a social process entailing responsibility for the effective planning and regulation of the operations of the enterprise".[4]

Thus the management is defined by many scholars, the central idea of which is 'Getting the things done by the employees in an effective manner'.

Henri Fayol introduced the term administration in his book "Industrial and general Administration" but did not distinguish it from management. Later, however, E.F.L. Breach, the British author of the 'principles and practice of management' stated that management is concerned with decision making while administration is concerned with the implementation of decisions made by the management.

Henri Fayol explains "Administration deals with the governing functions but Management deals with executive functions".

Thus in totto the activities of various officers as stated by Kautilya constitute the field of Administration and Management. While discussing either about ancient Indian History or Economics or polity the scholars do not forget to mention

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Kautilya and his Arthasastra. Similarly in the topic of management also under the heading of "Evolution of management thought" Kautilya is mentioned under Indian civilization (page-20, Personal Management and Industrial Laws). It states "The Arthasaastra of Kautilya about (321B.C.) discusses, the political, social and economic management of the state. In his treatise, Kautilya covers almost every aspect of the theory of government. He discusses the duties of the King and his ministers, the council meetings, department of the government, diplomats etc. In addition he deals with the Organization and management of trade and commerce, laws and law courts, municipal government and social customs, taxation and revenues, agriculture, mines and factories, markets and slaughter houses, census operations and so on. In short he attempted to analyse the practices that had brought political success in the past and what might be followed for political success in future".

Thus the scholars have expressed their gratitude towards Kautilya to whom they are indebted forever.

Now needless to say that the concept of Management is clear in Arthasaastra. Throughout his work Kautilya uses a word '*kaarayet*', which is of potential mood meaning "Should make (the person) do the things" or "Should get the things done" which exactly is the quality of a manager. Thus the administrator entrusts the responsibility of implementation of policies with the managers.

A perfect administrative machinery is depicted in Arthasaastra. Almost all the topics concerning state policy are discussed by him as he states that his work is composed to guide the King (Ruler) in acquiring the kingdom and its management.[5]

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The fundamental policy as stated by him is four fold. "The acquisition of the things that are not acquired, preservation of things acquired, augmentation of the things preserved and the proper distribution (allotment or allocation) of the things to the recipients." Thus four fold activity covers the entire area of management. The major activities of the various departments are discussed in the second Adhikarana of Arthasaastra under the heading "*Adhyakshapracarah*", the activity of the heads of the departments". Hence the term *Adhyaksha* is translated as Superintendent by Dr. R. Shamashastry. But R.P. Kangle has translated it into various terms depending upon the nature of the work the officer carries out. These terms of course mean 'the head of the department'. Therefore, for a clear understanding of the terms, the Sanskrit as well as English terms would be presented in the forthcoming discussion.

Now, to begin with, the management in Arthasaastra gives an idea of an ideal system of management. According to modern thinkers, the persons endowed with managerial skills should be appointed as managers after an interview by the experts. The basic managerial skills are three, (1) Technical skill, (2) Human skill and (3) Conceptual skill.

Kautilya's Arthasastra is not an exceptional to such system. In fact, it gives a detailed picture of the whole system of recruitments to each category. Hence, the discussion now turns towards Kautilyan system.

According to Kautilya, the King should appoint the persons in key-posts with the help of his priest and ministers. Kautilya does not spare any one including the King. He lays certain qualities for each one involved in administration.

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For all the high posts like IAS, IPS, IFS in modern India he prescribes certain common qualities known as "Amatya Sampat". The persons endowed with these basic qualities would be tested again in the fields of their specialization. The details are as follows.

"A native of the country, noble born, efficient in controlling, trained in arts, wise, intelligent, persevering, dexterous, eloquent, bold, possessed of presence of mind, enthusiastic and energetic, able to bear troubles, upright, friendly, firmly devoted, endowed with character, strength, health and spirit, devoid of adherence and fickleness, amicable, not of quarrelsome nature," these are the excellences of an Amatya".[6] Such persons are to be appointed in various departments in accordance with their eligibility. Before assigning the departments these persons should under-go four secret tests. These are called secret tests because, they are conducted without the knowledge of these candidates. The four tests are Dharmopadha (testing the merit of a person), Arthopadha (testing the loyalty), Kamopadha (testing the character) and Bhayopadha (testing the courage). The process is given in detail in the tenth chapter of 1st Adhikarana of Arthasaastra.

The persons who get through these tests hold very high posts. Those who are proved upright by the first test should be appointed as Dharmasthiyas (Judges) and Pradestas (Commissioners). Those who are proved loyal should be appointed as Samaahartaa (Commissioner or Collector of Taxes) and Sannidhaata (Director of Stores). Those whose character is proved should be appointed in Baahyabhyantara-vihara' (as the guardian of the recreation places inside and outside the royal palace). Those who are proved courageous should be appointed as close attendant of the King (like bodyguards etc.). Those who

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are proved honest by all tests should be made the Councillors, and those who are found dishonest by every test should be appointed in mines, in forests, in elephant forests and factories.[7]

Thus there were strict rules in the case of appointment of Councillors and Ministers in ancient India. The ministers (Amatyas) were personal assistants or they were secretaries to the king as they were called Sahayakas and Sachivas.

Thus the King (Ruler) with a perfect constitutional body "Rajyanga" with seven constituents (Saptangas), will be able to carry out the administration. This effective machinery gets things done through the heads of departments.

As is already discussed, there is a distinction between administration and management. Administrator gets the things done even from a distance, whereas a manager carries out the work by the employees being nearer to them and taking care of them.

The personal management is one of the important branches of management, which is well discussed in Arthasaastra. He has discussed twenty four main departments. Each department is headed by an expert in the concerned field. They are as follows:

1) Akshapatalaadhyaksha (The Superintendent of Accounts), 2) Kosaadhyaksha (Superintendent of Treasury), 3) Aakaraadhyaksha (Superintendent of mines), 4) Suvarnaadhyaksha (Superintendent of gold), 5) Kosthaagaaraadhyaksha (Superintendent of store house), 6) Panyaadhyaksha (The Director of Trade), 7) Kupyaadhyaksha (The Director of Forests), 8) Ayudhaagaaraadhyaksha (The Superintendent of the Armoury), 9) Pautavaadhyaksha (The Superintendent of Standardization), 10) Manaadhyaksha (The Superintendent of

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Measurement), 11) Sulkaadhyaksha (The collector of Customs), 12) Sutraadhyaksha (The Superintendent of yarn), 13) Sitaadhyaksha (The Director of Agriculture), 14) Suraadhyaksha (The Controller of spiritual liquors), 15) Sunaadhyaksha (The Supervisor of Animal slaughter), 16) Ganikaadhyaksha (The Superintendent of Courtesans), 17) Naavadhyaksha (The Controller of shipping), 18) Godhyaksha (The Superintendent of Cattle), 19) Asvaadhyaksha (The Superintendent of Horses), 20) Hastyadhyaksha (The Superintendent of elephants), 21) Rathaadhyaksha (The Superintendent of Chariots), 22) Pattyadhyaksha (The Superintendent of Foot soldiers), 23) Mudraadhyaksha (The Superintendent of Passport (stamps)), 24) Vivitaadhyaksha (The Superintendent of Pausters).

There are other officers mentioned in the chapters in accordance with the subject. For example, Lohaadhyaksha (Director of Metals), Lakshanaadhyaksha (Mint Master), Khanyadhyaksha (Superintendent of Mines), Lavanaadhyaksha (Commissioner of salt) are discussed in twelth chapter of second Adhikarana. Kautilya has used Aakaraadhyaksha and Khanyaadhyaksha which R.P. Kangle has translated as Superintendent of Mines. But Dr. R. Shamashastry, has made a distinction between them. He translated "Akaradhyaksha" as "The Superintendent of Mines" and Khanyadhyaksha as "The Superintendent of Ocean Mines" (P. 89 Kautilya's Arthasaastra- by Dr. K. Shama Shastry). It appears quite appropriate as this Adhyaksa looks into the affairs of products of ocean."

Thus so many branches were functioning effectively in ancient India. There are perfect guidelines to the administrator in chapter Nine of second Adhikarana to look into the affairs and to get the work done effectively.

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This Chapter gives outlines of "Management" in ancient India. The 'Management' in modern terms has got four fold functions besides various other functions. The four important Functions are 1) Planning, 2) Organizing, 3) Motivation and 4) control.

The students of Management will understand the details of these functions. The activities in brief are planning the work, assigning it to the employees as per their capability, encouraging them by appreciating and promoting to the higher positions and controlling the quality of the work regulating the activities in the workshop.

These topics in the terms of Kautilya are well discussed in Sanskrit terms. Ultimately it is the responsibility of an Administrator to see the managers do the duties well. Hence, the system described by Kautilya begins with the appointment of all the above mentioned heads. He says that, the persons endowed with the excellences of Amaatya (discussed before) should be appointed as heads of the departments in accordance with their subject specialization. For example, the Superintendent of Mines should be an expert in mining and the Superintendent of Treasury should have the basic knowledge of precious things.

The development of an organization or an Office totally depends on its Manager who is otherwise called Adhyaksha by Kautilya. Therefore, first his loyalty is to be tested. Then automatically things go in a smooth manner. Therefore Kautilya says that after assigning the departments to the officers their work is to be inspected because, the nature of human beings goes on changing. "Men are like horses whose nature changes when employed in the work" says, Kautilya.[8] This statement is applicable to high officials as well as to subordinate employees.

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The high Officials cannot be inspected day to day. Of course, their movements will be known to the administrator through the spies.

As defined in the beginning, the meaning of the Manager is who manages the work done by the employees. Kautilya uses the words 'Kaarayet' should make do; 'Vidyaat' should know, 'Aveksheta' should look into etc, (all the words are in potential mood) in each chapter mentioning as the duties of the concerned officer. Therefore the persons who are assigned with such responsibility are managers. Hence, the term 'Manager' is used in this discussion. Here are a few references which come under modern management.

1. Planning: At first the Manager should know the details of the workers, the seat allotted to him, the place, the time, the work to be done, the outlay and the profit. He should see that the workers should not concert together nor should they quarrel. Concerting together they might swallow the profits and disunited might ruin the affairs. They should not be allowed to undertake any assignment without informing the high officer, except in cases of emergency.

The personal files are to be maintained. The manager should have the information regarding the details of the worker. This comes under purview of personal management. This is most important to assess the personality of an employee. Kautilya gives certain clues to know the nature and activity of the employee. In every Office the finance department is the most important one. Therefore, the manager should see that the accounts are properly maintained. The Accountant who causes loss of revenue consumes the royal income. One who shows excess income eats up the country side. One who spends the revenue without bringing

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any profit in, he consumes the labour of the workmen. Hence, there should be a watch over these employees.[9]

2. Organising: The Chief Officer should get the work done through the experts in the concerned field. For example, the Superintendent of Mines should have the knowledge of metallurgy, Geology etc, otherwise, he should carryout the work with the assistance of experts in the above sciences. Similarly the Director of Trade should be conversant with the differences in the prices of commodities of high value and of low value and the demand in the market. He should have the details of the goods whether they are the products of water or land, from native state or foreign state etc. Then he should fix the places for their sale either centralised or decentralised. All such activities come under Organizing.

3. Motivating: The Motivation is most important to get the work done. The employees should have job satisfaction. Their work should be recognised and rewarded. Kautilya says "The King (Administrator) should ignore a minor offence (Small mistakes) on the part of the concerned Officer and should feel satisfied with benefit even if it is a little. He should honour the sincere officers who bring benefit to the department".[10] He should also make the officers permanent in their departments, who work honestly and sincerely and cause the economic growth of the department.

4. Controlling: Kautilya has taken special care in controlling the employees. He believes that the control plays an important role in the welfare of the Kingdom and subjects. Therefore, he has laid strict rules to all the employees including high officials. In fact, the branch of personal management in Arthasaastra functions well for the economic growth of the

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country and betterment of the employees. The workers are provided with all the facilities. Exploitation is not allowed by Kautilya. For example, after assigning a work to a worker, if the owner does not take the work, the wages are to be paid to the worker who is present at the work spot. The widows were given the work by the Superintendent of yarn which they can do in their homes. But the quality of the work should be maintained. Any defect in the quality or quantity should be punished.

In fact, there is a perfect management system in all the departments. To discuss the topic the management in Arthasaastra a thorough study of the work is a must. The Rural Management, Industrial Management, Financial Management, trade and Commerce etc, all are explained by Kautilya in his Arthasaastra.

There are a few examples to control the workmen which are as follows :

There used to be a State goldsmith. He should get the work done by the artisans (goldsmiths). These workers in the gold workshop should do the work as per the order in nature and within the stipulated time. Otherwise, the loss of wages and an amount double to it are the fines. The workers should not steel the minerals in the mines. If they do so they should be punished in accordance with the offence.

The workers should be helped in the case of calamity. According to Kautilya if a worker dies on duty, his sons and wives should receive the wages. Their Minor sons, sick and old persons should be taken care of. When the worker or his family members are sick the management should help by granting some money. On the occasion of birth of the member in that family, the occasion should be graced by the presence of the officer.[11]

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The Industrial and Labour laws, the wage system etc, all are discussed in detail by Kautilya. What more to say, the Management of each department is discussed in the same chapter dealing with the functions of the department. Hence, 'Kautilya on management' needs the thorough study of Arthasaastra. It is not possible to discuss all the topics of Management in one place as it is manifold. Particularly the 'Personal Management' in Arthasaastra is a model to the modern students on Management. The 'Management' as depicted by Kautilya is the root cause of the prosperity of a sovereign state. Therefore the Administrator should always try for the welfare of the subjects in which his prosperity and of his state lies.

Footnotes:

1. सहायसाध्यं राजत्वं चक्रमेकं न वर्तते ।
   कुर्वीत सचिवांस्तस्मात्तेषां च श्रुणुयान्यतम् ॥ K.A. 1-7-9

3 प्रत्यक्षपरोक्षानुमेया हि राजवृत्तिः ।
यौगपद्यात्तु कर्मणामनेकत्वादनेकस्थत्वाच्य देशकालात्ययो मा भूदिति परोक्षममात्यैः कारयेत् । K.A. 1-9-4,8

3. P.2 'Principles and practice of Management'
4. P.8 Ibid
5. सर्वशास्त्राण्यनुक्रम्य प्रयोगमुपलभ्य च ।
   कौटिल्येन नरेन्द्रार्थे शासनस्य विधिः कृतः ॥ K.A. 2-10-63
6. जानपदोऽभिजातः स्ववग्रहः ..... इव्यमात्यसम्पत् । K.A.1-9-1
7. K.A. 1-10-4 to 15
8. अश्वसधर्माणो हि मनुष्या नियुक्ताः कर्मसु विकुर्वते । K.A. 2-9-3
9. K.A. 2-9-5 to 18
10. K.A. 2-7-41
11. K.A. 5-3-28 to 30

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Kautilya on State Economy

"All undertakings are dependent mainly on treasury. Therefore the king should look after the treasury",[1] says Kautilya, the great scholar who has summarized all the works on 'Arthasastra'.

In Saptanga, Kosa is the stomach of the sovereign body, which should be maintained well to keep the sovereign body healthy. If it is not well maintained in a proper way the sovereign body becomes weak and cannot resist the internal and external enemies.

Therefore, as mentioned above the King should first look after the treasury. Yajnavalkya did not deal with this topic except mentioning Kosa in one place, as he has paid attention on the topics of religious customs, judicial law and the remedies against sins, in his work. He has devoted very small portion for polity in the first Adyaya of his work.[2]

However, Manu and Kautilya agree with each other concerning this topic with slight difference in their views.

The opinions of these two authors may be discussed here to throw the light on ancient Indian economical conditions and the maintenance of finance, in those days.

The maintenance of Kosa according to Manu, should not be entrusted to anyone. He says that, the king himself should look after the Kosa and Rastra.[3] For, the former one assures the well being of the kingdom and the latter one is concerned with

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the proper financial support as well as the support of the subjects. This rule is laid by Manu with due consideration and it is a guideline to the administrators.

This rule has undergone change by the time of Kautilya, according to whom the Kosa may be entrusted to a person possessing the qualities of a minister who has proved himself upright by the test Arthopadha.[4]

However, the king was monarch and supreme authority in ancient India. Hence, he had to carry on all these affairs with the help of his assistants. The maintenance of treasury is well explained by Kautilya in his Arthasastra. Probably having followed the rules of Arthasastra, the great Mauryan emperor Chandragupta ruled the vast part of India, unopposed for twenty-four years.[5]

As mentioned in the chapter sixth of first Adhikarana, two chief officials were there to look after the affairs concerning the department of finance. They were 1. Sannidhata and 2.Samaharta. These two officers carry out the affairs concerning the department of 'Finance' with the help of their assistants.[6]

The sources of income to the royal treasury (Ayamukham)

Among the ancient authors, Kautilya is the only author who explains every topic in detail. He has given the clear picture of the department of finance in ancient Indian administration. He has explained the sources of income and how to increase and maintain them.

According to him there are seven sources of royal income, which come under the management of Samaharta. These sources are 1.Durga, 2. Rastra, 3. Khani, 4. Setu, 5. Vana, 6. Vraja and 7. Vanikpatha.

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1. Durga : The one which, collected by the levy of custom duties and fines come under 'Durga'. The taxes, which are collected from the citizens of various professions and of various departments, come under this topic. The concerned officer looks after the collection of these taxes and fines.

2. Rastra : The taxes and fines concerning fields come under Rastra. Apart from these, the tributes from various people, the taxes concerning the sea-trade etc, come under Rastra.

3. Khani : The taxes and fines concerning the mines and minerals come under Khani.

4. Setu : The taxes and fines concerning flower gardens, fruit-orchards, vegetable gardens and wet-crop-fields etc, come under 'Setu'(connected with water works).

5. Vanam : The taxes and fines connected with the forest animals, deer, elephants etc., and other forest produces such as wood etc., come under 'Vanam'.

6. Vraja : The taxes and fines connected with the pet animals, cows, buffaloes, goats, sheep, donkeys, camels, horses and mules come under 'Vraja'. Vraja means the stable. Those, which. are maintained by the householders in the stables are called 'Vraja'.

7. Vanikpatha : The taxes and fines concerning the trade-routes, come under Vanikpatha. Not only the land route but also the water-route for trade come under this.

Thus these are the major sources of income to the royal treasury according to Kautilya.[7] The taxes are collected under various heads.[8] They are the price, surcharge, monopoly, fixed tax, manufacturing charge and penalty.

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The way of expenditure (Vyaya Sariram)

There are many ways of expenditure to be met by the royal treasury. They are explained under the head 'Vyaya Sariram' by Kautilya. According to him the money is intended for:

1. the worship of Gods and men,
2. charity, gifts etc, on festive occasions,
3. the royal palace,
4. the employment of envoys,
5. the maintenance of all types of store-houses like armory, ware-house etc.
6. the maintenance of the four branches of army and
7. the gardens and enclosures.

These constitute corpus of expenditure.[9] Collecting all the taxes, duties and fines and maintaining the records up to date is the duty of the collector of revenue, Samaharta. He is the authority who has to submit the budget.[10] The estimate of revenue, accrued revenue, out-standing revenue, income and expenditure and balance should be maintained in the records. Again all these are of many kinds, which are as follows.[11]

1. Karaniyam (The estimate revenue)

The place, the sphere of activity, laying down the corpus of income, receipts, the total income from all items of revenue and the grand total, come under the estimate revenue.

This is a sort of budget estimate of revenue made at the beginning of the year, with all the details when it is to be spent and how, and so on.

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2. Siddham (Accrued revenue)

This is the income credited to or paid to the treasury. This is of six-fold nature. They are credit into the treasury, money taken by the king, expenses of the city, the money carried forward from the year, the money which is released by a decree and the money that is ordered orally. All these constitute accrued revenue.

3. Sesam (Outstanding revenue)

This also is of six fold nature, which is as follows. Acquiring the fruits on completion of an understanding, the remainder of fines, the forcible collection of dues withheld, the money that is used by the officer and which is to be cleared by them, the money pertaining to the goods of high value and the money pertaining to the goods of small value. All these constitute the outstanding revenue. Let us now look into the income and expenditure as explained by Kautilya.

According to him the income and expenditure are to be noted in the record. The former is of three types while the latter is of four types. The three types of income are : current (Vartamana) , Outstanding (Paryushita) and got from the other sources (Anyajata). The details of these are as follows.

i. Vartamana (The current income): The current income which comes through day-to-day transaction is Vartamana.

ii. Paryusitam (The outstanding income): The income which belongs to the preceding year or which is transferred from another sphere of activity is Paryusitam.

iii. Anyajata (The income derived from other sources): The money or goods lost by people who are not identified, that which is forgotten, that for which there is no claim from

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anybody, the fines imposed on employees, that which is in the form of compensation for loss, the gifts, the property of a person involved in a riot, the property of a person who has no heirs and the treasure-troves – come under Anyajata.[12]

If the money is not spent due to some unavoidable reasons it is called 'sesa', the balance. Again the expenditure is of four types pertaining to conditions. They are Nitya, Nityotpada, Labha and Labhotpada. The details of these are as follows.

Nitya is day to day i.e. current expenditure. When an extra expenditure comes in current expenditure, it is called Nityotpada, in the same manner Labha is the investment for next year, which results gain. That amount which is spent in excess for the purchase of same is called Labhotpada.

The Samaharta has to look after the maintenance of finance with the help of upright persons. Therefore, in the beginning itself Kautilya said that the persons who are proved upright by the test Arthopadha, should be appointed in the department of finance. As mentioned in the beginning, the chief officials in the finance are Samaharta and Sannidhata. Samaharta is the Collector, who carries out the collection of taxes with the assistance of the employees under him. Sannidhata is in charge of all the stores who carries out the construction, maintenance and checking the quality of goods received into the stores.

Taxes

Samaharta is the concerned officer of taxes. As mentioned above the tax is one of the major sources of income to the royal treasury. It may be stated that tax is collected from the subjects as the maintenance fee. Here is a small story of taxes.

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It is in brief as follows:

The king has to take care of his subjects. The king is responsible either for their prosperity or adversity. Therefore, he should be paid something for that duty. The subjects suffering due to lack of administration and suffering by 'Matsyanyaya' have elected 'Vaivasvata Manu' as their king.[13] They have offered him one-sixth corn, and one-tenth gold as the fee for maintenance. Henceforth, kings have been looking after the Yoga and Ksema of the subjects. All ancient traditions are unanimous on this point.

Kalidasa in his Raghuvamsa says "Dilipa has collected taxes only for the well-being of subjects like the sun, who collects the water and returns it in thousand folds".[14]

The trade is one of the means of development of economical condition in the country. Hence, the traders should not be troubled with the burden of taxes. The tax on businessmen should be imposed after considering the sale, purchase of the goods and their tours from place to place for trade. Thus the king should encourage the trade by considering the problems of the traders.

According to Kautilya, each head of the department has to look after the production, manufacturing or sale of the goods. He has to check the employees in their work. If they misbehave, he must report to the concerned authority. The offences and punishments regarding various professions and taxes are entrusted to the commissioner (Pradesta). The tax on flowers, fruits, vegetables and roots is one-sixth part of the product.[15]

According to him on best quality of silk, yarn, on armors, yellow orpiment, red arsenic, antimony, vermilion, metals of various kinds, ores, sandal wood, alloy, spices, fermentation, minor substances, skins of dear and elephant etc., ivory, bed-

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spreads, covering and on products of goats and rams (blankets etc.) the tax is one-tenth or one-fifteenth part, as all these are valuable goods.

On clothes, four-footed and two-footed creatures (cows, hens etc.,), yarn, cotton, perfumes (middle quality), wood, bamboos, barks, leather goods and earthen ware and on grains, fats, sugar, salts, wine, cooked food (hotel) etc., the duty is 1/20 or 1/25 as these are of low Value than the above mentioned ones.[16]

According to Kautilya, another source of income to royal treasury is mining, as he states that, mines are the source of royal income. The superintendent of mines should look after the department of mines. Kautilya has explained how to recognize mines and various minerals etc. which reveals the geological knowledge of Kautilya. The income to the treasury from the mines is in many ways. They are as follows.

The price, the share, the surcharge, the monopoly tax, penalty, duty, compensation, fine, inspection fee and manufacturing charges as well as twelve kinds of metals and commodities made from them. Likewise, the tax may be fixed on other commodities.

Customs

Apart from the taxes, the customs and tolls are sources of income into royal treasury. The duty is to be imposed on the goods exported and imported in accordance with their quality. The collection of duty i.e. 'Shulka' is the duty of 'Sulkadhyaksa', the superintendent of customs. According to Kautilya, the duty should be collected for bringing the goods in from countryside or from city or from foreign land. In the same manner, for taking the goods to countryside or to other places or to foreign land the

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duty should be paid. But there are some goods for which the duty need not be paid. The goods intended for marriage, gifts and goods required for sacrifice or other ceremonies should go duty free. The traders or others who take or bring the goods should pay the duty at customs office. For not paying the duty, the punishment is in accordance with the nature of the offence. Importing or exporting of the harmful goods is an offence. For that they should be severely punished.[17]

There are different rates fixed as duty on various goods according to their value. The manufacturers should not sell the commodities in the place of their origin. If they do so, they should be severely punished, because it is an offence.

Therefore, it is the duty of 'superintendent of customs' to look after the affairs concerning the customs and tolls on the goods. If he does not do his duty with devotion and sincerity, then there is a loss to the royal treasury, which causes the downfall of the financial position of the country.

When these are the sources of the royal treasury, there are many leakages in the royal treasury, which makes the treasury and kingdom weak. They are the loopholes not only of treasury but also of kingdom, because the latter is dependent on treasury.

Kautilya not only explains the cause for increase and decrease in treasury but also explains the measures that are to be taken to avoid the decrease in treasury and to make it prosperous. These duties are entrusted with 'sannidhata'. There is an exhaustive description in Arthasastra regarding the measures to be taken for the stability of the Economic-Position. Only a brief information is presented here as a key to the treasure of Kautilyan wisdom.

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Footnotes:

1. कोषपूर्वाः सर्वारम्भाः । तस्मात् पूर्वं कोषमवेक्षेत । K.A. 2-8-1

2. Y.S. 1-309 to 368.

3. नृपतौ कोशराष्ट्रे च दूते सन्धिविपर्ययौ । M.S. VII

4. अर्थोपधाशुद्धान् समाहर्तृसन्निधातृ निचयकर्मसु.... K.A. 1-9-6

5. Gokale, Ancient India – History and Culture, P.35.

6. K.A. 1-9-6

7. समाहर्ता दुर्गं राष्ट्रं खनिं सेतुं वनं व्रजं वषिक्पथं चावेक्षेत.....आयमुखम् । K.A. 2-6-1 to 9

8. एवं मूल्यं विभागं च व्याजी परिघमत्यथम् ।
शुल्कं वैधरणं दण्डं रूपं रूपिकमेव च ॥
खनिभ्यो द्वादशविधं धातुं पण्यं च संहरेत् ।
एवं सर्वेषु पण्येषु स्थापयेन्मुखसङ्ग्रहम् ॥ K.A. 2-12-35,36

9. देवपितृपूजादानार्थं, स्वस्तिवाचनमन्तःपुरं महानसं दूतप्रावर्तिमं कोष्ठागारमायुधागारं पण्यगृहं कुप्यगृहं कर्मान्तो विष्टिः पत्त्यश्व रथ-द्विप परिग्रहो गोमण्डलं पशुमृगपक्षिव्यालवाटाः काष्ठतृणवाटश्चेति व्यवशरीरम् । K.A. 2-6-11

10. एवं कुर्यात्समुदयं वृद्धिं चायस्य दर्शयेत् । K.A. 2-6-28

11. करणीयं सिद्धं शेषमायव्ययौ नीवी च । K.A. 2-6-13

12. नष्टप्रस्मृतमायुक्तदण्डः पार्श्वं पारिहीणिकमौपायनिकं डमरगत-कस्वमपुत्रकं निधिश्चान्जातः । K.A. 2-6-20

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13. मात्स्यन्यायाभिभूताः प्रजाः मनुं वैवस्वतं राजानं चक्रिरे । धान्यषड्भाग पण्यदशभग्र हिरण्यं चास्य भागधेयं प्रकल्पयामासुः । K.A. 1-13-6

14. प्रजानामेव भूत्यर्थं स ताभ्यो वलिमग्रहीत् ।
सहस्त्रगुणमुत्स्त्रष्टुमादत्ते हि रसं रविः ॥ R.V. 1-18

15. पुष्पफलशाकमूलकन्दवाल्किक्यबीजशुष्कमत्स्यमांसानां षड्भागं गृह्णीयात् । K.A. 2-22-4

16. आकरप्रभवः कोषः कोषाद्दण्डः प्रजायते । K.A. 2-12-37

17. K.A. 2-21

Abbreviations:

K.A. – Kautilya's Arthasastra

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2. Kautilya Arthasastra – T. Ganapatisastri Bharatiya Vidya Prakasan – 1990.
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Kautilya on Quality Control of Commodities

It would be quite appropriate to begin the discussion with the title of the work Arthasastra. Arthasastra is in general understood as the work dealing with the economics as Artha means money. But 'Arthasastra' is a work which deals with all the topics pertaining to administration. The economics being the main source of prosperity of the country, is discussed in this work in detail.

Kautilya the author of Arthasastra explains the propriety of the title of his work. He says, "the sustenance for the mankind is wealth and the earth is inhabited by the mankind."[1] Thus the idea here is the earth inhabited by men following various occupations constitutes Artha. The science dealing with such an earth (land) is Arthasastra. Its main concern is how to obtain earth and how to protect it.

This work is composed for the sake of kings after a thorough study of earlier works on Arthasastra as the prosperity of the country depends upon the king.[2] According to Kautilya the education is classified into four. 'Varta', (commerce, trade and agriculture, cattle breeding) is one of them the other being Vedas, philosophy and polity.[3] The king should be well acquainted with all the sciences. He should learn these sciences theory and practice from experts. Thus the 'Varta' is to be studied from the people who are dealing with the Commerce and Trade.[4] Because, the subjects commerce and trade need, a theoretical knowledge and

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also practical knowledge which can be acquired only from the people involved with it. As all the affairs are rooted in finance, the department of finance is the base for the prosperity of the country.[5] Hence, according to Kautilya the appointment of officers dealing with the Department of finance should be made after their loyalty is tested. This test is called 'Arthopadha'.[6] The director of finance is called Sannidhata and the Commissioner of Income tax is called Samaharta. These two persons look after the economics, commerce & trade.

There are heads of the departments mentioned in Arthasastra who look after the affairs of various departments and who have a role in quality control of various goods. They are

1. Kosadhyaksa (superintendent of treasury. 2. Akaradhyaksha (superintendent of mines), 3. Suvarnadhyaksa (superintendent of Gold) 4. Kosthagaradhyaksa (superintendent of store - House) 5. Panyadhyaksa (superintendent of commerce)

6. Kupyadhyaksa (superintendent of Forest produce). 7. Pautavadhyaksa (superintendent of weights and measures) 8. Sutradhyaksa (superintendent of weaving) 9. Sitadhyaksa (superintendent of Agriculture) 10. Suradhyaksa (superintendent of Liquor) 11. Sunadhyaksa (superintendent of slaughter house) 12. Nagarika (superintendent of city). These heads look after the affairs with the assistance of experts in concerned fields.

The store house, treasury house, house for forest produce, armoury and prison are to be constructed under the supervision of sannidhata. The commodities are mainly classified into two 1. Sara (Goods of high value) 2. Phalgu (Goods of low value).

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The superintendent of Treasure house should see the quality of the goods received in.[7] He should see that goods old or new, of high value or of low value are to be accepted to receive in after their quality is ascertained by the experts. Similarly another officer, the superintendent of store house should receive the goods of high value or of low value after they are tested by the assistants who are experts in concerned fields.[8] He should receive only such gold coins which have been tested by the examiner of coins. Counterfeit coins should be destroyed. For bringing the counterfeit coins into the treasury the fine is a minimum of 48 Panas and maximum of 96 Panas.[9] For bringing fraudulent gems the fine is 500 panas to 1000 panas. For fraud in the case of goods of high value the fine is 200 to 500 panas and for the similar offence in the case of goods of low value the restoration of the same and a fine equal to its value.[10]

The commodities are categorised under three heads 1. *Khani*, 2. *Setu*, 3. *Kupya*.

Gold, silver, diamonds, gems, pearls, corals, counch shells, metals, salt and other minerals, extracted from plains and mountain slopes come under *khani* (source of minerals).

Flower gardens, fruit-archards, vegetable gardens and grains come under *setu*.

Game forests, timber forests, elephant forests come under *Kupya* (Source of forest produce).

After discussing some general rules about these goods the attention may be drawn towards the sale and purchase of commodity.

1. *Khani* : Kautilya has explained the salient features of the ores of various minerals so as to trace the mines. According

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to him, the sale of the commodities manufactured from minerals should be centralised.[11] The sale of these products in other than the notified places is an offence. The manufacturers, sellers, and purchasers of such commodities outside the prescribed place are to be punished.

The manufacturing work which requires large outlay may be given on lease for a fixed number of shares or for a fixed rent.[12]

Coins : There is a detailed description of minting the coins in 12th chapter of 2nd Adhikarana of Kautilya's Arthasastra. The proportion of various metals in coins should be maintained as per the instructions. For not maintaining the prescribed quality, the manufacturer, sellers, purchasers, and also the examiner should be punished with a highest fine maximum of 1000 panas.

The same rules are applicable to the manufacture and sale of conch-shells, diamonds, precious stones, pearls, corals and salt.

Gold : Kautilya has explained the ways of testing the purity of gold. He has described the characteristics of a best touch stone. According to him a touch stone soft and with shining splender is the best. A touch stone of Kalinga country with the colour of green beans is also the best. Only such touch stones should be used in the sale and purchase of gold. After explaining the procedure of making various ornaments, Kautilya has laid down the punishments for not maintaining the quality.

For the artisan who spoils the work, the punishment is forfeiture of the wages and fine double the wages.[13]

The Artisan should deliver (the ornaments) in the same condition as to the quality and quantity as they received. In case

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of diminution of quantity to the extent of one masa, the fine is 48 to 96 panas. In case of diminution of quality to the same extent the fine is 200 to 500 panas. In case of deceit in scales and weights the fine is 500 to 1000 panas, the same fine should be imposed for fraud in an article manufactured.[14]

Thus, the officer should test the new and the old as well as the article that has changed its appearance. After ascertaining the information he should impose the fines in accordance with the offence.[15]

Kautilya explains the standardisation of cubical measures, weights, and various types of balances. He lays punishments for fraud in all the above mentioned ones.

There is an officer mentioned in the Arthasastra who looks after the quality of textiles i.e., weaving. In case of any decrease in the quality of threads, the fine for the worker is cutting the wages. For, the decrease in quality spoils the quality of a cloth.

Liquor was not prohibited in Kautilya's time. But the liquor shops were allowed only in the outskirts of the city. The superintendent of liquor should take care of the quality of the liquor. No fresh liquor should be sold for a low rate. The liquor should be prepared only by a licensed person. The sale of liquor may be centralised or decentralised owing to the circumstances. People may prepare liquor on their own only on festive occasions.[16]

The superintendent of slaughter house should see the fresh meat sold out. The butcher should sell only a fresh and boneless meat of beasts just killed. If anyone sells bony flesh of beasts, he should pay a compensation equal to it. If there is any fraud in weighing, the punishment is the restoration of the same and a fine 8 times the diminution.[17]

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The flesh of the animals killed outside the slaughter house, headless, legless and boneless fish, rotten flesh, and the flesh of the animals which are suddenly died should not be sold. For selling such flesh the fine is 12 panas. Because, such kind of meat causes dreadful diseases to the consumers.

The artisans and traders who cheat the public are treated as thieves by Kautilya. He says, "the king should prevent thieves who are not known as thieves such as traders, artisans, actors, mendicants, jugglers and others from oppressing the country."[18] This is happening everywhere in modern times.

Therefore, Kautilya discusses, about the deceit of artisans and traders in the 4th Adhikarana *kantaka sodhanam* (the suppression of criminals) treating them as the thorns to the society.

Kautilya lays punishments to the traders who do not maintain the quality of goods. An officer "Samsthadhyaksa" (superintendent of market place) is the head of the sale in the market. He should allow the sale of old and new commodity only after ascertaining the ownership of the traders. He should also check the weights and measures. Otherwise, the people are put to loss and the officers are liable for the injustice done to them.

If there is deception in cubical measures, weights etc, the traders committing such offences should be punished. For stating the goods of low value as of high value, the fines should be imposed on traders. For such deceit the fines in the case of timber, iron, brilliant stones, ropes, skins of animals, earthen ware, threads, fibrous garments, and woolen cloths the fine is eight times the value of the article. If a trader sells the goods of low quality by showing a sample of high quality or by declaring the

goods as products of one popular place which are actually not, the fine is the compensation for the loss and a fine of 54 panas. The same punishment is for the adulteration of goods. Such fraudulent cases are faced by citizens in day to day life in modern times.

For adulteration of grains, oils, alkalis, salts, scents, and medical goods, the fine is 12 panas. The sum 12 panas was not a small amount in those days. Therefore, the traders being scared of such punishments do not dare to commit the offences.

Only an authorised dealer should collect the goods from the superintendent for sale. If an unauthorised person collects the goods the punishment for him is confiscation of the goods from him.[19]

But all this would not mean that the traders had no profit in the sale. A good percentage of profit was given to them. According to Kautilya the traders may realise the profit of 5% on local commodity and 10% on foreign produce. The foreign traders were given some concession too. But the traders who extracted a gain more than the prescribed rate were punished.

In case of damage to the commodity the traders should be given some concession. Whenever there is an excessive supply of merchandise, the superintendent should centralise the sale and should not permit its sale at other places.

In the case of commodities imported from a distant place and manufactured long ago the expert should fix the price after calculating the investment, the production cost, duty, interest and other expenses.[20] The income tax is imposed even on fruits, vegetables etc, in accordance with the value of the items.

The artisans should do the work with loyalty. Kautilya Research Academy
lays punishments to the artisans who spoil the work. The punishments according to Kautilya are as follows :

If an artisan does not do the work in given time the punishment is a reduction in the wage by 1/4 and a fine double to that. For carrying the work otherwise (not as assigned) the punishment is the loss of wage and a fine double the amount.

Thus, an elaborative list of businessmen who cheat the public and the punishments prescribed for them is given in the first chapter of 4th Adhikarana *Kantaka Sodhanam.*

Thus, according to Kautilya the heads of the departments concerning commerce and trade should see that the quality of commodities is well maintained. There is no mention of consumer forum but, there was a regular check over all the concerned officers. The law was properly implemented. There was no delay in settling the issues. The common man is not aware of his rights. Then how can he fight for his rights? Keeping this in view ancient law-makers entrusted the responsibility with the King.

Footnotes:

1. मनुष्याणां वृत्तिरर्थः, मनूष्यवती भूमिरित्यर्थः, तस्याः पृथिव्याः लाभपालनोपायः शास्त्रमर्थशास्त्रमिति । K.A. 15-1-1
2. सर्वशास्त्राण्यनुक्रम्य प्रयोगमुपलभ्यच । कौटिल्येन नरेन्द्रार्थे शासनस्य विधिः कृतः ॥ 2-10 concluding verse
3. आन्वीक्षिकी त्रयी वार्ता दण्डनीतिश्चेति विद्याः । K.A. 1-2-1-
4. वृत्तोपनयनस्त्रयीमान्वीक्षिकीं च शिष्टेभ्यः वार्तामध्यक्षेभ्यः दण्डनीतिं वक्तृप्रयोक्तृभ्यः । K.A. 1-4-4

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5. कोषपूर्वाः सर्वारम्भाः तस्मात्पूर्वं कोषमवेक्षेत । K.A. 2-8-1

6. अर्थोपधाशुद्धान् समाहर्तृसन्निधातृ निचयकर्मसु । K.A. 1-9-6

7. कोशाध्यक्षः कोषप्रवेश्य रत्नं सारं फल्गु कुप्यं वा तज्ञातकरणाधिष्ठितः प्रतिगृह्णीयात् । K.A. 2-11-1

8. तज्ञातकरणाधिष्ठितः पुराणं नवं च रत्नं सारं फल्गु कुप्यं वा प्रतिगृह्णीयात् । K.A. 2-5-7

9. रूपदर्शकविशुद्धं हिरण्यं प्रतिगृह्णीयात् । अशुद्धं छेदयेत् । आहर्तुः पूर्वः साहसदण्डः । K.A. 2-5-9

10. सारोपधौ मध्यमः । फल्गु कुप्योपधौ तच्च तावच्च दण्डः । K.A. 2-5-8

11. कृतभाण्डव्यवहारमेकमुखमत्ययं चान्यत्र कर्तृक्रेतृविक्रेतृणां स्थापयेत् । K.A. 2-12-18

12. व्ययक्रियाभारिकमाकरं भागेन प्रक्रयेण वा दद्यात् । K.A. 2-14-21

13. कार्यस्यान्यथाकरणे वेतननाशस्तद्द्विगुणश्च दण्डः । K.A. 2-14-2

14. यथावर्णप्रमाणं निक्षेपं गृह्णीयुस्तथाविधमेवार्पयेयुः । वर्णहीने माषावरे पूर्वः साहसदण्डः । प्रमाणहीने मध्यमः । तुलाप्रतिमानोपधौ उत्तमः । कृतभाण्डोपधौ च । K.A. 2-14-36

15. एवं नवं च जीर्णं च विरुपं च विभाण्डकम् । परीक्षेतात्ययं चैषां यथोद्दिष्टं प्रकल्पयेत् । K.A. 2-14-55

16. सुराध्यक्षः.... कारयेदेकमुखमनेकमुखं वा । षट्शतमन्यत्र कर्तृक्रेतृ स्थापयेत् । कुटुम्बिनः कृत्येषु श्वेतसुरामौषधार्थवारिष्टमन्यद्वाकर्तुं लभेरन्। K.A. 2-25-1

17. मृगपशूनां अनस्थिमांसं सद्योहतं विक्रीणीरन् । K.A. 2-26-7

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18. एवं चोरानचोरान्वा वणिक्कारकुशीलवान् ।
भिक्षुकान् कुहकांश्चान्यान् वारयेद्देशपीडनात् ॥

K.A. 4-1 concluding verse

19. तेन धान्यं पण्यं निचयाश्चानुज्ञाताः कुर्युः । अन्यथा - निचितमेषां पण्याध्यक्षो गृह्णीयात् ।

K.A. 4-2-14

20. प्रक्षेपं पण्यनिष्पत्तिं शुल्कं वृद्धिमवक्रचम् ।
व्ययानन्यांश्च संख्याच स्थापयेदर्घमर्घवित् ॥

K.A. 4-2-concluding verse

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Arthasastra - the Department of Intelligence

The great Mahabharata thus states -

"Whether it is regarding Dharma or Artha or Kama or Moksha, whatever is in Mahabharata is found elsewhere, which is not found here cannot be found anywhere."[1]

Dharma, Artha, Kama and Moksha - These are four goals of human life which are bound together. The Dharma is the primary one which is inevitably followed by the other three Artha, Kama and Moksha. Dharma is the supporter of the universe. It is the controller of human life. But the concept of Dharma is not in the reach of the understanding of a common-man. Hence, it is the duty of the Ruler to see that every one sticks to his duty and resorts to righteous path. The Head, uttamanga of the sovereign kingdom, the king is the maker of the age. It is stated in Mahabharata -

"You need not have a doubt that whether the king is the (cause) maker of the age? or the age (time) is the maker of the king ? Certainly the king is the maker of the age."[2]

Thus, the king has to play a major role in State Administration. However, intelligent he might be, the king cannot manage the things all alone as a single wheel cannot carry the chariot. It is defined in Sanskrit literature that *rajya* means the combination of seven constituents. They are Svami, Amatya,

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Janapada, Durga, Kosa, Danda and Mitra. Amarakosa gives a list including the srenis-guilds.[3]

Swami - The king, *Amatya* - The minister, *Suhrit* - The ally, *Kosha* - The Treasury, *Rastra* - The State, *Durga* - The Fort (security), *Bala* - The Army, and also the guilds of citizens. These are the main constituents which work directly. There are other departments which are like organs (*gnana* + *karma*) of a body. They are the persons working in the department of intelligence. Kautilya explains the need of the Intelligence department which plays an important role in the administration that too spreading out its net not only in own country but also in foreign countries. The royal affairs mainly are of three fold -

"Directly perceived (known), indirectly known and those are to be known through inference."[4] Hence, the king should appoint Amatyas and Purohitas to help in direct affairs. The Department of intelligence is the tool to know all indirect affairs. A detailed information is available about the network of '*guptacharavyavastha*' in Kautilya's Arthasastra.[5] Not only the treatises on polity like Arthasastra, also the literary works (in Sanskrit) focus on the importance of this branch. The Dramas of Bhasa *Pratijnayaugandharayana* and *Svapnavasavadatta* too present the function of *guptacharas.* The mega political drama *Mudrarakshasa* based on the story of *Chanakya* and *candragupta* gives a detailed picture of intelligence branch which was acting according to the tunes of *Chanakya.* Magha in his Sisupalavadha describes the king as a distinct personality in one sloka.

"The king has intellect as weapon, *prakritis* (The constituents *amatya* etc.) as limbs (body), the secrecy as the armour, the spies as eyes, the envoys as face - thus the king is somewhat a special person (personality)."[6] *Kiratajuniya* also

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states that the spies are the eyes of the kings. Therefore, they should not deceive the king. They should present the correct picture of the affairs to the king.[7]

Spies are not only the eyes but they are all sense organs of the king. Through them king gets the information regarding internal as well as external affairs of the kingdom.

Before going to discuss the network, the various definitions of the spies for various terms may be noted here.

Yathahavarnaha means having signs as per his activity. For example 'varnilingi' word in Kiratarjuniya.

1. Pranidhi - Kautilya uses this word as title for the chapter twelve of first Adhikarana "which means assigning the duties to them.

2. Apasarpah - One who goes to the people in distant places. Those who go to other places, countries to know the affairs come under this category.

3. Carah - One who moves from place to place. This is roving spy. Kautilya has mentioned this as *sancara.*

4. Spasah - means touching, troubling. One who catches and troubles the treacherous person. This word is used in Magha.

5. Carah - One who knows the strength of enemy king.

6. Gudhapurushah - One who works being in disguise. This is a Karmadharaya Samasa.[8]

Thus, there are many functions to be carried out by the department of Intelligence. It is the chief security wing without which the kingdom does not survive. The great poet *Magha* states that the political body has no beauty without the branch of Intelligence.

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There is a pun (slesha) in the sloka in which Magha compares *rajaniti* to *sabdavidya* (grammer) particularly to *Mahabhashya.* Without Paspasahnika there is no charm in Mahabhasya. Similarly there is no beauty in polity without the branch of Intelligence (it would not flourish).[9]

Now the focus may be laid on the frame work of this department as depicted in Arthasastra of Kautilya to have an acquaintance with the style of functioning of the spies in Ancient India.

The spies have an important role in the appointment of Amatyas and Purohitas. The net work is seen throughout the work Arthasastra. Only some salient features are discussed here.

Two chapters of 1st Adhikarana of K.A. deal with the matter concerning spies. The chapter *Gudhapurushotpatti* explains the procedure of appointing the spies and the chapter *Gudhapurusha Pranidhi* describes the allotment of duties to them.

It is interesting to note that not only educated but also other persons were appointed as spies as per the work to be carried out. In this process the Department is mainly divided into two – *Samstha* and *Sancara*; The former is stationary and the latter has roving spies.

Samstha : There are five wings which are looked after by five types of spies. The five types are 1. *Kapatika*, 2. *Udasthita*, 3. *Grhapatika Vyanjana*, 4. *Vaidehaka Vyanjana* and 5. *Tapasa Vyanjana*. Their qualities and duties are as follows -

1. Kapatika : A student who is capable of knowing other's secrets, bold and talkative is *Kapatika.* He is appointed to know the secret information.

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2. Udasthita : One who has renounced the home for some time and again came back, intelligent, man of integrity is *Udasthita*. He in the same saintly appearance should collect the information by sending his disciples in to society. Apart from this duty the disciples should engage in some profession like agriculture or business. The royal treasury also pays a handsome honororium to them.

3. Grhapatika Vyanjana : One who incurred loss in agriculture, but wise and man of good conduct is to be appointed as a spy who looks into the affairs in the guise of a householder.

4. Vaidehaka Vyanjana : One who incurred loss in the business, but wise and man of integrity is *Vaidehaka Vyanjana,* who performs his duty in the guise of a businessman.

5. Tapas Vyanjana : One who is with the shaven head or with matted hair, and is in need of an employment is appointed as a spy in the guise of a saint. He has to carry his duty being in the guise of saint but can eat normal food in secrecy.

The word *Vyanjana* here means, the deceptive. Magha Kavi uses such word *Amatyavyanjana* for those who being Amatyas mislead the king.

The-above five types of spies should have a watch over the royal employees. They receive due honour and gifts from the king.

Sancara : The department of 'Roving spies' is spread over the country of his own and of others. This department provides jobs to people belonging to various categories and of various attitudes. The selection of the spies in this chapter tells how to utilise the skills of various persons despite some abnormalities in them.

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There are three categories 1. *Satri*, 2. *Tiksna* and 3. *Rasada*. Their characteristics and duties assigned to them are as follows -

1. Satri: Those who are relatives of the king and ought to be nourished by the king should be appointed as *Satri*. But they should be acquainted with some skill like - Astrology, Hypnotism, Magic, the science of omens etc. They are supposed to get the secret information skillfully with the help of the above sciences.

2. Tiksna: Those who are brave and prepared to fight even with elephant or a wild elephant at the cost of their life for the sake of money, they are known as *Tiksnas*.

3. Rasada: Those who have no affection towards relatives, cruel by nature and lazy are to be appointed as *Rasada* the poison givers.

4. Parivrajika: A female mendicant who is in need of an empowerment, a poor lady, a widow who is talkative, and a Brahmin lady who is honoured in royal harem - these are to be appointed to go to the houses of dignitaries to collect the secret information.[10]

The above description reveals that an intelligent king would make use of the different skills even in persons going on a wrong path. Thus, the employment problem also gets solved.

It is well stated by a poet -

"There is no such letter / syllable which is valueless, no such root which has no medicinal value, no such person who is unfit, only the problem is a person who knows to utilize them is hardly available".[11]

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Thus, there were no orphans were left in ancient India, because of the noble administration of the rulers.

The role of the spies is very significant. They had a major role in the appointment of high dignitaries Amatyas (ministers) and Samaharta (collector) etc. The network of this intelligence department is like a chain. The roving spies pass on the information to the stationary *Samstha* spies. The movements of high dignitaries holding important positions must be observed and should be brought to the notice of this department.

The activity of the spies is two fold. 1. Observing the movements of the chief officers in our country. 2. Going to other country to know the situation there and try to bring the chief officials under their control by luring them in different ways. This is stated as *Krtyakrtya Paksha Rakshanam.*

The chief officials are mentioned as '*Tirtha*' in Arthasastra. They are Eighteen as mentioned by Kautilya - 1. *Mantri*, 2. *Purohita*, 3. *Senapati*, 4. *Yuvaraja*, 5. *Dauvarika*, 6. *Antarvamsika*, 7. *Prasasta*, 8. *Samaharta*, 9. *Sannidhata*, 10. *Pradeshta*, 11. *Nayaka*, 12. *Pauravyavaharika*, 13. *Karmantika*, 14. *Mantri Parisadadhyaksha*, 15. *Senadhyaksha*, 16. *Durgadhyaksha*, 17. *Antapala*, 18. *Atavika.*

The spies should go to these dignitaries in the guise of different professionals. The information is communicated from one to another which goes like a chain. The *Tikshna* collects the Secret information at his life risk and passes it to *Satri.* The *Tikshnas* enter the royal harem at their life risk in the guise of wielder of umbrella, water supplier, fanner etc.

Rasada spies take up the work in the kitchen. Similarly the actors, dancers, singers etc, should find an entry through their

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art. There was code language used by the spies for mutual communication.

Thus a major role was played by the department of intelligence in ancient India. Those who work in disguise in enemy's kingdom receive wages from native kingdom and also form the enemy kingdom. Hence, they are called *Ubhayavetanas*.[12]

Even the Jain monks and foresters were appointed as spies to know the things on the out skirts or in the forests. There are many other sub-branches in the Department of Intelligence. This throws light on "Ancient Indian Administrative System" which enables the kings to rule for quite a long time.

India was so well advanced even before the Christian Era. Kautilya's statement is '*Rakshito Raja Rakshati*' the king being protected, protects (the people). The confidentiality is the main thing which is to be strictly maintained for the security of the kingdom. Even in the democracy there is no need to publicise every thing, because it makes the Administration weak. Therefore, the rules regarding the Intelligence net work should be made strict and should be followed without any deviation. Then only the country and its people are protected.

This is in brief the activity of the Department of Intelligence. The matter regarding spies in Arthasastra needs a lot of research which helps in the field of Administration.

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Footnotes:

1. धर्मे चार्थे च कामे च मोक्षे च भरतर्षभ ।
   यदिहास्ति तदन्यत्र यन्नेहास्ति न तत् क्वचित्।। MBH. Adi. 62-53

2. कालो वा कारणं राज्ञः राजा वा कालकारणम् ।
   इति ते संशयो माभूत् राजा कालस्य कारणम्।।MBH. Santi. 9-19

3. स्वाम्यमात्यसुहृत्कोशराष्ट्रदुर्गबलानि च ।
   राज्याङ्गानि प्रकृतयः पौराणां श्रेणयोऽपि च ।। Amarakosha-18

4. K.A. 1-9-4

5. K.A. 1-11 to 14

6. बुद्धिशस्त्रः प्रकृत्यङ्गः घनसंवृतिकञ्चुकः ।
   चारेक्षणो दूतमुखः पुरुषः कोऽपि पार्थिवः ।। Magha-2-84

7. क्रियासु युक्तैर्नृप चारचक्षुषो न वञ्चनीया प्रभवोऽनुजीविभिः ।
   Ki. 1-4

8. यथार्हवर्णः प्रणिधिरपसर्पश्चरः स्पशः चारश्च, गूढ़पुरुषश्च ।
   Amara-Kshatra-13

   1. प्रकर्षेण निधीयते ज्ञेयमस्मिन्निति प्रणिधिः ।
   2. अपकृष्टं सर्पति इति अपसर्पः ।
   3. चरति इति चरः ।
   4. स्पशति बाधते परानिति स्पशः । (स्पश बाधन स्पर्शनयोः)
   5. चरति जानाति परबलमिति चारः । 'चर गतौ' - गत्यर्थत्वात् ज्ञानार्थत्वम् ।
   6. गूढ़श्च असौ पुरुषश्च -
      अनुत्सूत्रपदन्यासः सद्वृत्तिसन्निबन्धना ।
      शब्दविद्येव नो भाति राजनीतिरपस्पशा ।। Magha-2-112

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9. 1. परमप्रज्ञः प्रगल्भः छात्रः कापटिकः ।
   2. प्रव्रज्या प्रत्यवसितः प्रज्ञाशौचयुक्तः उदास्थितः ।
   3. कर्षको वृत्तिक्षीणः प्रज्ञाशौचयुक्तः गृहपतिकव्यञ्जनः ।
   4. वाणिजको वृत्तिक्षीणः प्रज्ञाशौचयुक्तः वैदेहकव्यञ्जनः ।
   5. मुण्डो जटिलो वा वृत्तिकामः तापसव्यञ्जनः ।

   K.A. 1-11-2 to 13

   अमात्यव्यञ्जना राज्ञां दूष्यास्ते शत्रुसंज्ञिताः । Magha-2-56

10. K.A. 1-12-1 to 5

11. अमन्त्रमक्षरं नास्ति नास्तिमूलमनौषधम् ।
    अयोग्यः पुरुषो नास्ति योजकस्तत्र दुर्लभः ॥

12. K.A. 1-12-6 and 20.

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Kautilya on Anti Social Activities

According to Kautilya 'Danda' is three fold. Death, Tormenting and forfeiture of property.[1] The punishments for some crimes are dealt with in this paper. For most of the Civil offences, the punishments are either compensation, or a fine or forfeiture of property. For crimes such as violence, theft and murders, the punishments prescribed by Kautilya are, cutting off the limbs, simple death and death by torture in accordance with the nature of crimes. (The offences and punishments are discussed in detail by this author in a book 'Kautilyan Penal Code', which is under reprint)

Punishments for Theft

The theft is of two types. One is by the employee i.e., theft committed by servants in a house, or by an employee in an office are so on. Stealing goods, articles from mines, factories etc, come under the above offences. The second type is robbery by professionals. Such as thieves, robbers, who loot others' property in the absence or in the presence of the owners. These people sometimes alone and sometimes with their gang rob the public and the government.

In the case of first type theft i.e., by employees there is no much harm. They simply take away the goods etc, unseen by anybody. They simply misappropriate the royal money or of the public and cheat both the public and the government. But the

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latter are very dangerous to the country. They are the actual thorns. They not only take the money, goods etc, whatever they like, but sometimes they assault the owners of the property.

For one stealing cattle, images, persons, the fields or houses, money, gold, gems or crops belonging to a temple, the punishment is either highest fine for violence or simple death. For kidnapping a maiden or a female slave with money, it is the cutting off the left hand and both feet or a fine of 900 panas.[2]

These are in short, the punishments for thefts, described by Kautilya.

Offences and Punishments concerning the Gambling

Gambling was not prohibited in ancient times. But, there were some rules to be followed by the gamblers. The discussions on gambling is found in Manusmriti and Kautiliya and similar works on Dharmasastra and Arthsastra.

Kautilya has laid some rules for gamblers and prescribed punishments for those who overcome the rules.

The gambling should be carried out in a notified place. For playing elsewhere than the notified place, the fine is 12 panas.[3] By this rule the secret players should be punished.

The predecessors of Kautilya say that, in a dispute of gambling, the loser, should be punished by the middle fine for violence and the winner, the lowest fine for violence. Because, the loser being unable to bear the loss, may resort to violence.[4]

Kautilya differs with the above opinion. He says if the loser is punished, with a double fine, no one would approach the king. The gamblers are generally fraudulent players. So, they should

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be punished according to the offence.

To avoid the fraud in gambling the manager should provide clean cowri-shalfs and dice to the gamblers. For playing with other than these (clean ones), the gamblers should be punished.[5]

The Punishments for Fraud in Gambling are

For substituting the cowri-shalfs or dice with that of other cowri-shalfs or dice (of their own), the fine is 12 panas.[6]

For playing false tricks and for fraud in play, the lowest fine for violence and confiscation of winnings. For one cheating the co-gamblers the punishment is the same as for theft.[7] The manager of the gambling hall should collect 5% tax from the gamblers. He should collect the rent for cowri-shalfs, dice, leather-straps and ivory-cubes and for place and water. (Among the above mentioned, the leather straps and ivory cubes were used in gambling in those days).[8]

The gambler should not commit the offences by the sleight of the hand (false tricks). For not prohibiting the offences, concerning dice, ground and the use of the hand, the fines to the manager should be double the prescribed.[9]

The manager of gambling house should allow the sale or pledging of the articles.[10]

Offences and Punishments concerning Drinking Liquor

Like the gambling, drinking liquor was not prohibited but it was to be carried out in a fixed place.

The controller of liquors should allow the trade of wines and ferments in the fort, or in the country or in the camp, through license holders. Manufacturing or sale or purchase should be done in a fixed place. For manufacturing selling, or purchasing

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elsewhere than in a fixed place, the fine is 600 panas.[11]

The liquor is not allowed to take out of the village and to the professional places. Otherwise, the employees neglect their duties (by drinking), the Aryas transgress the bounds of propriety and the bravoes create violence by intoxication. So, drinking should be carried out in the drinking houses without moving outside.[12]

The drinking hall manager should have a watch on the articles sold, pledged, or deposited in drinking house. On finding an article or money not belonging to a person, he should effect the arrest of a person, also one who spends lavishly without a source of income, and one who pledges, sells or deposits other's articles (for drinking). All such persons should be punished.[13]

The ale-houses should be constructed with many rooms, provided with separate beds and seats, with drinking bars, provided with perfumes, flowers and water and pleasant to the customers in all seasons. Secret agents should be appointed in the drinking house, to know the normal and reasonable expenditure of customers. The secret agents should get the information, and particulars of strangers. They should make a note of the ornaments, clothes and cash of customers who are intoxicated or sleeping. In case of loss of these above mentioned, the traders should pay the same (what is lost), and an equal amount of it, as a fine. These rules protect the people who indulge in such activities.[14]

The wine-traders also should find out the intentions of strangers and natives, and particulars about the persons, who appear like Aryans, when they are intoxicated. To find out about these above mentioned persons, the traders should appoint beautiful female servants.[15]

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Thus the controller of drinks should look after in such a way that the drinking should not cause any violence to the social life.

On the occasions of festivals, gatherings, permission should be granted to manufacture or sell the liquor. It may be carried out for four days on such occasions. But, the persons who manufacture or sell without permission should pay penalty per day, as prescribed by the controller of liquor.[16]

Offences and Punishments concerning Courtesans

It seems prostitution was legalised in times of Kautilya. The prostitution was a profession in those days. The prostitutes were paid Wages in accordance with their positions.

The positions of Prostitute are of three kinds. Uttama (superior), Madhyama (middle), Kanishta (lowest than Uttama and Madhyama). 'Uttama' should be "A woman endowed with skills and possessed of charm and beauty". She should be paid 3000 panas as salary. The middle and the lowest should be paid 2000 Panas, and 1000 respectively. These positions (Uttama) etc, should be decided, in conformity with their beauty. So, in case of loss of beauty, the prostitute (who lost her beauty), should be appointed as Matrka.[17]

The prostitutes may be appointed, one belonging to courtesan's family; or one not belonging to family, who is endowed with beauty, youth and arts, with a pay of 1000 panas. Half of the pay should be given for her family. If a courtesan has run away or died, her sister or daughter should take up that Profession. In the absence of these, the king should take away the belongings of courtesans.[18] Even their sons were provided with jobs in royal courts. Thus Kautilya's Arthasastra focuses on social welfare courtesan is one who is always well-dressed.

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Vesaskari Vesya. They may give up their profession according to their wish. There is no trafficking found mentioned in Arthasastra because of strict rules and proper vigilance. These are the lessons to be learnt from ancient law-makers. A forest law prevails if there is no law and order in the society.

Foot Notes:

1. वधः परिक्लेशोऽर्थहरणं दण्डः । K.A. 3-10-35
2. K.A. 4-10-14, 16
3. K.A. 3-20-1
4. द्यूताभियोगे जेतुःपूर्वः साहसदण्डः । पराजितस्य मध्यमः । बालिशजातीयो ह्येष जेतुकामः पराजयं न क्षमत इत्याचार्याः । K.A. 3-20-2
5. तेषामध्यक्षाः शुद्धाः काकणीरक्षांश्च स्थापयेयुः । K.A. 3-20-3
6. काकण्यक्षाणामन्योपधाने द्वादशपणो दण्डः । K.A. 3-20-4
7. K.A. 3-20-9
8. K.A. 3-20-10
9. K.A. 3-20-12
10. K.A. 3-20-11
11. K.A. 2-25-1
12. K.A. 2-25-3,4
13. K.A. 2-25-6
14. K.A. 2-25-12 to 14
15. K.A. 2-25-15
16. K.A. 2-25-36, 37
17. K.A. 2-27-4, 5
18. K.A. 2-27-1

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Some Aspects of the Science in Arthasastra

There are many secrets in the Universe which are beyond the reach of human brain. Researchers went on, going on to know these secrets. Still there remains a lot unexplored and unrevealed. The nature is equipped with everything that is needed for its offspring.

The most wonderful thing in the universe is unity in diversity. All the things in the world are complementary to each other. Human beings, animals live together amidst trees. These provide food to these beings. In return, the human beings take care of the trees. Thus the world is a house of different beings of different cultures. The vedas are the source of sciences in which all the secrets of nature are embedded. The description of the deities in suktas give a scientific analysis of those characters.

The smrtis too being the records of srtis do deal with all the topics that are connected with human life. Having incorporated the scientific knowledge under the headings of 'Acaras' (customs) they have contributed a lot to human race. In course of time due to the reasons well known all this is faded away and slowly got disappeared. Hence, a review and re introduction needed to reconstruct the structure of Indian life. Therefore, an attempt is made to bring out the information pertaining to sciences as depicted in Dharmasastras and Arthasastra.

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Only a few Manu, Yagnavalkya and Parasara Smrtis and Gautama Dharma Sutras are referred to in this paper and much focus is laid upon Kautilya's Arthasastra.

The Smrtis deal with the topics of Science in a suggestive manner under Acaras where as Kautilya's Arthasastra deals with them in clear terms. The information available in Arthasastra is mostly in confirmity with that of modern sciences. Only a few references are given in this paper to understand the validity of the information found in ancient works.

There are rules about Food habits, maintenance of health etc, which are as follows:

One should not take the food of previous day. Taking the food of yesterday night is a sin. Every scientist is aware of the fact that such food is injurious to health.[1]

The diseases spread through the articles used by a diseased person. Hence, Manu and Yajnavalkya say that one should not use the shoe, garments etc, used by others.[2] Smrtis insist upon shaving and cutting the nails on alternate days,[3] of course, the Kamasutra of Vatsyayana, exclusively a work on science, explains physical health and body care.

An interesting point to be noted is that the urine of cow is used in cleaning the vessels. The 'Gopancitam' five things of cow are very auspicious to Indians. The secret behind it is all these have medicinal values.

No one should wear dirty and torn clothes when the financial position is good. "A Snataka (one who has completed his studies) should always be neat in appearance, says Manu.[4] (All these rules are suddenly appeared due to the pandemic Covid-19 not only in India but all over the world)

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One should not eat anything by placing it on the seat or on the bed etc. Ancient Indian Scholars are very particular about all these traditions, because, all such bad habits are injurious to health.

A particular kind of tree is 'Selu'. It should not be used in eatables.

The curds and all the items which are fermented should be avoided.[7] The eatables which are naturally sour like Dadima etc, are not prohibited (Pomogranate and citrons).

The food deeply fried is not good for health. Therefore, it is to be avoided. There are some exceptions also.[8]

The chapter Dravya Suddi Prakarana in three smrtis Manu, Yajnavalkya and Parasara focus on the scientific knowledge. It gives an elaborative description of the cleaning process of various metallic articles and various types of garments. The description is as follows.

A golden vessel if there is no contact with the greezy things can be cleaned only with water,[9] the articles of gold / silver and the water products like counches etc, become clean by washing them with water.[10] The vegetables, roots, skins of sheep, fruits, bark garments get cleaned by water. The wooden spoons etc, used in sacrifice are also to be cleaned in the same manner.[11] But those which are greasy are to be cleaned by hot water.[12] Manu says that Gold and Silver are the products of fire and water. Therefore, they are to be cleaned with the same objects, fire and water.[13] Ashes are also changed form of fire. Hence, they are to be used to clean the Gold and Silver. As far as other metals are concerned, the copper vessels are to be cleaned by using 'Amla' things like tamarind and salty water.[14] The tin and lead are to be cleaned by water. Brass and iron are to be cleaned with ashes.[15]

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The most important point comes here which is not in the practice now is the woolen clothes are to be cleaned with a particular type of saline soil, water and cow urine. The bark garments are to be cleaned by the mixure of srifala and water. A particular type of rugs, products of the mountain sheep, are to be cleaned with Arista (Soapnut) water. The pure silken garments are to be cleaned with the mixure of white mustard and cow urine. If the same old procedure is reintroduced with the help of scientists, there will be no need to run towards petroleum usage which is beyond the reach of common man. The scientists know the properties of cow urine. With the help of their knowledge the rich tradition may be brought into light.

It is very interesting to know that Kautilya's Arthasastra is a compendium of all the sciences. It is popular as the work on social sciences like economics, commerce and political science etc, but it has equally dealt with the topic of physical and Biological sciences. At the outset it is to be mentioned that there are about fourteen topics on sciences dealt with in Arthasatra. Each topic is explained with details which focus on the wisdom of scholars in ancient India. The topics discussed in Arthasastra are listed below -

1. Science of Gems, 2. Mining, 3. Metallurgy , 4. Forestry, 5. Agriculture, 6. Textiles, 7. Armoury, 8. Civil Engineering (Vastu, Sethu etc.) 9. Chemistry (Rasayana sastra), 10. Equestrian (Science of horses), 11. Elephant - lore (Science of Elephants), 12. Machines 13. Carpentry, 14. Smithy. Only a few topics are chosen to discuss here. They are: 1. Mining 2. Chemistry, 3. Forensic medicine. These topics are discussed here with a comparison to modern sciences.

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1. Mining: A beautiful description of salient features of the land, water, rocks, mountain slopes which are the sources of ores is found in 12th chapter of 2nd Adhikarana of Kautilya's Arthasastra. The duties of superintendent of mines are explained in the above mentioned chapter. The superintendent of mines should have the knowledge of Sulbasastra, Dhatusastra, Rasayanasastra, Pakavidhi and maniraga. Or else he should carry out the work on mines with the help of experts in the concerned field.[17]

The knowledge of Geology is the main factor to trace the ores.[18]

According to Kautilya gold is of two types. One is that which is used to make ornaments. The other is used in Gold covering on other metals like copper, silver etc. The salient features of these gold mines too differ in their appearance.

The gold ores of first type may be traced at pits, caves, mountain slopes etc, based upon the colour of fluids flow there in or of mineral dust etc. The following are the salient features of the outer appearance of gold ores.

A) Where the fluids are found in the colour of jambu (rose-apple), of mango, of fanpalm, of ripe turmeric, of arsenic, of honey and of vermillion.

B) Which are as resplendent as the petals of a lotus or the feathers of a parrot or of a peacock.

C) Which are adjacent to (any mass) water or shrubs of similar colour.

D) Which are greezy (chikkana)

E) Which are transparent (Visada)

F) Which are very heavy.

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The ores of gold, which is used for recovering, may be traced by the following features.

A) The minerals which are yellow or as red as copper or reddish yellow.

B) Which are disjoined and marked with blue lines.

C) Which have the colour of black beans (masa), green beans (mudga) and sesamum.

D) Which are marked with spots, like a drop of curd, and resplendent as turmeric, yellow myrobalalm, petals of lotus, aquantic plant, the liver of the spleen.

E) Which possess a sandy layer within them and are marked with figures of a circle of a svastik.

F) Which contain globular masses (Sagulika)

G) And which, when roasted do not split but emit much foam and smoke.[19]

These are the ores of suvarnadhatavah - probably this is the same as Alluvial gold which is called "placer gold" and is used in the preparation of medicines and ornamental plating.

This is the system of tracing the ores in ancient India. These factors need not be set aside as this information helps in tracing the mines even in modern times. As it is stated "Although colour is not a very reliable property in identifying most of minerals, it is useful in making certain general distinctions for example minerals containing iron are usually dark-coloured".[20]

The same idea is found in Arthasastra as the description says that the minerals of iron ore will be either in orange or pale red or in the colour of sindluvara flower.[21]

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The description of the minerals of gem stones in K.A. is perfectly matching with that of modern study. There is an exhaustive discussion in Arthasastra on this topic.

According to Kautilya, the minerals which are pure (pleasing colour), transparent, flawless, hard and of light colour are the gem-ores.[22]

The description in "geology of India, Pakistan, Bangladesh and Burma" is as follows: "all minerals which gave a pleasing colour, are transparent, flawless and sufficiently hard to withstand wear and tear can be used as gem-stones. As a rule, the more attractive the colour and its shade, the greater its hardness and transparency, the more precious the gemstone."[23]

The crystalised forms of the minerals are gems. Even the shapes of gems mentioned in K.A. are matching with the description of crystals in modern sciences. There is a lot to discuss about Ratnasastra in detail. Only glimpses are shown here to have an idea about the treasure trove of ancient wisdom.

Thus the knowledge of Ancient sciences may be of great help to the researchers in modern times.

Next to mining, the attention is to be drawn to 'Rasayana Sastra' (Chemistry). Even this topic too is an exhaustive one and not that easy to discuss in such a small paper.

1. Rasayana sastra

As discussed at the beginning of the topic 'mining' the knowledge of 'Pakavidhi' (Alchemy) i.e. Rasayanasastra is a must for the purification of raw-metals.

Here is a very interesting description of the things that are used in purifying the minerals. The minerals get purified when

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they are infused in strong urine and caustic, when mixed with the powder of the Rajavrksa (clitoria Ternatea), vata (Ficus Indica), and Pilu (carnea Arborea) together with cow's bile and the dung of a buffalo, of an ass and an elephant.[24]

Here tiksna, means nitre. But Dr.Sham Shastry and R.P.Kangle read it as tikshna mutra which means the urine of human being or of an elephant or of an ass. This point needs the attention of the modern scientists. It is clear that Uric acid, Nitric acid and caustic soda etc, are used in chemical analysis. Hence, there is no wonder in using the urine directly or in an indirect manner, as the normal constituents of urine being 1. Urea, 2. Uric acid, 3. Creatinine, 4. Sulfates, 5. Chlorides and 6. Phosphates.[25]

The mention of urine very often occurs in 'Dravya Suddhi Prakaranam' of Dharma Shastras which is already dealt with in the beginning of this paper.

Another interesting description occurs in chapter 25 of 2nd Adhikarana of K.A. The preparation of spirituous liquors is explained in this chapter. A deep knowledge of chemistry is needed to prepare the liquors that are not injurious to health.

Here are the glimpses of ancient Indian knowledge regarding the Rasayanasastra i.e. Chemistry.

According to Kautilya, liquor is not prohibited because, the ancient Indian liquors had medicinal values. Therefore, the king should take care of the preparation of liquors which do not harm his subjects. A superintendent known as 'Suradhayaksha' should look into the affairs of the department of liquors.

There are various types of liquors mentioned in Arthasastra. All of them are not discussed here as it would be an elaborative

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one. Only a few important points are discussed to focus on the ancient Indian scientific knowledge. Some of the varieties of liquor are Medaka, Prasanna, Asava, Arista, Maireya and Madhu.

Medaka is manufactured with one drona of water, half an Adhaka of rice, and three prasthas of kinva (ferment).

Twelve adhakas of flour (pista), five prasthas of kinva (ferment), with the addition of spices (Jatisambhara) together with the bark and fruits of putraka (a speices of tree in Kamarupa), constitute prasanna. One hundred palas of kapitha (feronia Elephantam), 500 palas of phanita (sugar) and one prastha of honey (madhu) form asava.

Kautilya has explained the preparation of the kinva (ferment) also. The ingredients of ferment are as follows: One drona of either boiled or unboiled paste of masha (Praseolous Radiatus), Three parts more of rice, and one karsa of morata, (Alngium - Hexapetelum) and the like form kinva (ferment) (See K.A. for more details).

The decoction of madhuka (Bassia latifolia) mixed with grannulated sugar (katasarkara), when added to prasanna gives it a pleasant colour.

The requisite quantity of spices to be added to asava is one karsa of the powder of each of chocha (bark of cinnamon), chitraka (plumbagozeylanica), vilanga, and gajapippali (Scindapsusofficinalis) and two karsas of the powder of each of kramuka (betelnut), madhuka (asisa latifoliar), musa (cyprus Rotundus) and Lodhra (Symplocos Race mosa).[25]

The knowledge of Rasayanasastra is also found in Aupanisadika prakarana where Kautilya discusses the preparation of various types of poison to administer on enemies. It is very

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interesting to note that there is a description of a mixture which keeps a man away from hunger even for one month.

The preparation is as follows:

The powder of sirisa (minosa sirisa), Udumbara (glamerous fightees), and sami (Acacia suma), mixed with clarified butter enables a man to fast for half a month.

The powder of masa (praseolus radiatus), yava (barlye), kulutha (horse-gram), and the root of darbha (sacred grass) mixed with milk and clarified butter or the milk of vallie (a kind of creeper) and ghee mixed in equal proportions, boiled and combined with the paste prepared from the root of sala (Shorea robusta) and prisniparni (vedysarum lago podioteles) when drunk with milk or a dose of milk both prepared from the above substances enable one to fast for a month.[26]

Yajnavalkya too describes eleven varieties of Liquor.[27]

Now the discussion goes to the topic Forensic medicine. There is no need to emphasis upon the known fact that Indian medicine is an auxiliary to Vedic literature. But it is probably not known to many people that medical references are found in Arthasastra of Kautilya also.

2. Forensic Medicine

The forensic medicine comes under criminal law which is also known as "Medical Juris Prudence".[28]

It is very interesting to note that the ideas of Indian Penal Code are the same since olden days as Kautilya too has discussed the forensic medicine in chapter *"Asumrtaka pariksha"* (The postmortem of the cases of sudden death) in 4th Adhikarana *Kantaka sodhanam* which exclusively deals with criminal law.

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There is an exhaustive information in both the works K. A. and "Medical Jurisprudence", only a few instances are discussed to throw the light on Forensic medicine referred to in Arthasastra and Dharmasastras.

Yajnavalkya in his Smrti gives detailed description of anatomy.[29]

He gives an account of growth of featus, the number of limbs, bones and veins etc.

Now according to Kautilya, the postmortem in the case of death by hanging, drowning and poisoning, the bodies were kept in some sort of chemicals. That fluid is mentioned as "Taila" in Ramayana and in later works also. Kautilya too uses the same term. What that taila might be is the question left to the scientists.

The postmortem appearance in the case of death by hanging is swollen hands, legs and belly, with sunken eyes, and navel inflation. The same description is found in modern medicine book.[30]

Similarly the drowning case is to be understood. In such case the rectum and eyes get stiffened, tongue will be seen bitten between teeth, the belly in swollen condition.[31]

Kautilya has explained the postmortem appearance in case of death by poisoning. The detailed information matches with that of modern postmortem procedure.[32]

A lot of research should be made by the Sanskrit scholars with the help of Scientists to bring out the Indian sciences into light.

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Footnotes:

1. शुक्तं पर्युषितोच्छिष्टं श्वस्पृष्टं Y.S. 1-167

2. उपानहौ च वासश्च धृतमन्यैर्न धारयेत् ।
उपवीतमलङ्कारं स्रजं करकमेव च ॥ M.S. 4-66
परशय्यासनोद्यान गृहयानानि वर्जयेत् ॥ Y.S. 1-160

3. क्लृप्तकेशनखश्मश्रुर्दन्तः शुक्लाम्बरः शुचिः । M.S. 4-35
शुक्लाम्बरधरो नीचकेश श्मश्रुनखः शुचिः । Y.S. 1-131

4. न सीदेत्स्नातको विप्रः क्षुधा शक्तः कथं च न ।
न जीर्णमलवद्वासा विभवे सति ॥ M.S. 4-34

5. शयनस्थो न भुञ्जीत न पाणिस्थं न चासने ।

6. शेलुं गव्यं च पीयूषं प्रयत्नेन विवर्जयेत् ॥ M.S. 5-6

7. M.S. 5-10

8. न भुञ्जीतोद्धृतस्नेहं नाति सौहित्यमाचरेत् ।
नातिप्रगे नातिसायं न सायं प्रातराशितः ॥ M.S. 4-62

अन्नं पर्युषितं भोज्यं स्नेहाक्तं चिरसंस्थितम् ।
अस्नेहा अपि गोधूमयवगोरसविक्रियाः ॥ Y.S. 1-169

9. निर्लेपं काञ्चनं भाण्डमद्भिरेव विशुद्ध्यति ।
अब्जमश्ममयं चैव राजतं चानुपस्कृतम् ॥ M.S. 5-111

10. सौवर्णराजताब्जानामूर्ध्वपात्रग्रहाश्मनाम् ॥

11. शाकरज्जुमूलफलवासोविदलचर्मणाम्
पत्राणां चमसानां च वारिणा शुद्धिरिष्यते ॥ Y.S. 1-182,183

12. चरुणां स्त्रुक्स्त्रुवाणां च शुद्धिरुष्णेन वारिणा ।
स्फ्यशूर्पशकटानां च मुसलोलूखलस्य च ॥ M.S. 5-116
चरुस्त्रुक्स्त्रुवसस्नेह पात्राण्युष्णेन वारिणा ॥ Y.S. 1-183

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13. अपामग्नेश्च संयोगाद्वैसं यौसं च निर्दिशेत् ।
तस्मात्तयोः स्वयोन्यैव निर्णेको गुणवत्तरः ॥ M.S. 5-112

14. ताम्रायः कांस्यरैत्यानां त्रपुणः सीसकस्य च ।
शौचं यथार्हं कर्तव्यं क्षाराम्लोदकवारिभिः ॥ M.S. 5-113

15. त्रपुसीसकताम्राणां क्षाराम्लोदकवारिभिः ।
भस्माद्भिः कास्यलोहानां शुद्धिः ल्पावो द्रवस्य च ॥ Y.S. 1-190

16. कौशेयाविकयोरूषैः कुतपानामरिष्टकैः ।
श्रीफलैरंशुपट्टानां क्षौमाणां गौरसर्षपैः ॥ M.S. 5-119

सोषरोदकगोमूत्रैः शुध्यत्याविककौशिकम् ।
सश्रीफलैरंशुपट्टं सारिष्टैः कुतपं तथा ॥ Y.S. 1-186

17. आकराध्यक्षः शुल्बधातुशास्त्र रसपाकमणिरागज्ञस्तज्ज्ञसखो वा तज्ज्ञातकर्मकरोपकरणसम्पन्नः किट्टमूषाङ्गारभस्मलिङ्गं वाऽऽकरं भूतपूर्वमभूतपूर्वं वा भूमिप्रस्तररसधातुमत्यर्थवर्णगौरवमुग्रगन्धरसं परीक्षेत । K.A. 2-12-1

18. Physical Geology, by L. Donlect 4 Sheldon Judson.

19. अप्सु निष्ठ्यूतास्तैलवद्विसर्पिणः पङ्कमलग्राहिणश्च ताम्ररूप्ययोः शतादुपरिवेद्धारः । तत्प्रतिरूपकमुग्रगन्धरसं शिलाजतु विद्यात् । शङ्खकर्पूरस्फटिकनवनीतकपोतपारावत विमलकमयूरग्रीवावर्णाः सस्यकगोमेदक-गुडमत्स्यण्डिकावर्णाः कोविदारपद्मपाटलीकलाय क्षौमातसीपुष्पवर्णाः ससीसाः साञ्जनाः विस्रा भिन्ना श्वेताभाः कृष्णाः कृष्णाभाः श्वेताः सर्वे वा लेखबिन्दुचित्राः मृदवो ध्मायमाना न स्फुटन्ति बहुफेनधूमाश्च रुप्यधातवः । K.A. 2-12-3,4,6

20. Physical Geology – P.35, by L. Donlet & Sheldon Judson

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21. कुरुम्बः पाण्डुरोहितः सिन्दुवारपुष्पवर्णो वा तीक्ष्णधातुः ।

K.A. 2-12-14

22. अच्छः स्निग्धः सप्रभो घोषवान् शीततीव्रस्तनुरागश्च मणिधातुः ।

K.A. 2-12-16

23. "Geology of India, Pakistan, Bangladesh and Burma" by R.C. Mediratta.

24. तेषामशुद्धा मूढगर्भा वा तीक्ष्णमूत्रक्षार भाविता राजवृक्ष, वटपीलुगोपित्त-रोचना महिष, खरकरथमूत्रलण्डपिण्डबद्धास्तत्प्रतीवापास्तदवलेपा वा विशुद्धाः स्त्रवन्ति । K.A. 2-12-7

25. "Laboratory experiments in Physical Chemistry" – P.136 by Athur K. Anderson.

26. माषयवकुलत्थदर्भमूलुचूर्णं वा क्षीरघुताभ्यां, वल्लीक्षीर घृतं वा समसिद्धं सालपृश्नपर्णीमूलकल्कं पयसा पीत्वा, पयो वा तत्सिद्धं मधुघृताभ्या-मशित्वा, मासमुपवसति । K.A. 14-2-3

27. पानसं द्राक्षं माधूकं खार्जूरं तालमैक्षवम् ।
मधूत्थं सैरमारिष्टं मैरेयं नालिकेरजम् ॥
समानानि विजानीयान्मद्यान्येकादशैव तु । Y.S. p. 528

28. "Medical Jurisprudence and Toxicology". P.1

29. Y.S. 3-84 to 109.

30. Medical Jurisprudence and Toxicology p.208

31. Medical Jurisprudence and Toxicology p.222

32. Laboratory experiments in physical Chemistry Chapter "Determination of total solids in Milk".

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The Medicinal Values of Indian Asavas with reference to Caraka Samhita and Kautilya's Arthasastra

According to Indian tradition the complete life span of human beings is 100 years. The life span is thus defined in Ayurveda-

The period of the union of body and soul is 'Ayu'[1]. Ayurveda is a treatise dealing with the topics concerning human health which provides information about the agents that are good and bad for health, the disease, the diagnosis and the cure[2].

"Prospering day by day you may live long for hundred years. Live for hundred Autumns, live for hundred springs, may Indra, Agni, Savita and Brhaspati grant thee life for hundred years". Thus a hymn wishes in Atharvaveda[3]. The science of Ayurveda helps to acquire good health and maintain the same[4]. A good health is based on the food habits of a man. Bhagavadgita says that food influences the human nature. Indian Medicine declares that the spiritual liquors give energy to human body. The vedic gods like Indra and classical god Balarama are often described as drinkers of *soma* and *aasava* respectively. Bhasa, the first sanskrit dramatist pays tributes to Balarama in the opening verse of *'Svapnavasavadatta'* which is as follows:

"May the rich and beautiful arms of Balarama, which are energitic due to excessive *aasavapaana* protect you"[5].

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Magha the poet pays excellence in his 'sisupalavadha' describes Balarama in the following way -

Balarama rolling the eyes which were shining with "red lustre due to the Asavapana"[6].

Such descriptions draw the reader's attention to the ancient Indian culture.

The famous work on Indian Medicine "Carakasamhita" describes the Asavas in the chapter dealing with the rules to be followed regarding food and drinks (*annapanavidhi adhyayaha* C.S.27). The author of this text, as mentioned in its introduction is *Agnivesa* who has studied the *'Ayurveda'* under *Punarvasuatreyaha*. There were five other disciples along with him. All the six scholars have composed the works on 'Ayurveda'. But 'Agnivesa's text became popular. The physician 'Caraka' has rearranged the samhita. Therefore, it is known by his name as *'Carakasamhita'*. There is a mention in Mahabharata of one *Krsnatreya* as the author of *cikitsasastra*. The traditions state that *Atreyapunarvasu* and *Krsnatreya* are one and the same. It is known from *'Samyukta ratna pitakasutra'* and *'Sridharma pitaka sampradayanidana'* available in China that *Caraka* was the royal physician to king Kanishka (Introductionto C.S.).

Kautilya's description of liquors in his Arthasastra totally agrees with that of *'Caraka samhita'*. Kautilya the scholar of manifold genius explains the varieties of liquors, their preparation etc., in detail in the chapter *Suradhyaksa*. Therefore, it may be understood that the Indian liquors were prepared in such a way that they were not injurious to health. The information about this ancient knowledge helps the society to understand the rich culture of India.

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The *Madyavarga* which is a part of *annapanavidhi* depicts the various types of 'Asavas' and their sources which is as follows:

"Some liquors are naturally hot and sour and some are sour due to fermentation. Still some liquors are of distinct nature"[7].

The 'Madyas' mentioned in C.S. are as follows:

Sura, Madira, Jagalah (Bijabandha sura), Arishtah, Sarkarah, Pakvarasah, Sitarasikah, Gandah, Surasavah, Madhvasavah, Maireyah, Dhatakyabhishutah, Mridvikekshurasasavah, Madhu, Sauvirakatushodakam, Amlakanjikam.

C.S. explains the process of preparation of the liquor in 26th chapter, and also describes the ingredients of the various liquors. Kautilya gives details about their preparation.

Before going into these details there is an interesting thing to be noted. C.S. states that old wine is good for health than the new one. The same opinion is found even today in case of liquors[8].

There is a discussion between 'Atreya' the scholar of Ayurveda and his disciple 'Agnivesa' regarding various types of foods and drinks. Atreya says -

"Food is most suitable for sustaining the body. Water is the best among drinks that gives relief. 'sura' is the best among those that relieve fatigue, sour food is most relishable to the palate and 'madhu' (Honey) is highly useful in curing ailments related to Sleshma and pitta"[9].

Atreya gives an exhaustive list of human intake which is good for health. Then 'Agnivesa' requests 'Atreya' to explain about the 'Dravyas' (ingredients) required for the preparation of liquors:

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Atreya answered, Grain, fruit, root, inner part, flower, trunk, leaves, bark and sugar – These are the sources of various liquors.[10]

Thus according to C.S. liquor can be prepared from *dhaanya* (grain), *phala* (fruit), *moola* (root), *saara* (inner part), *puspa* (flower), *kanda* (trunk), *patra* (leaf), *tvak* (bark) and sarkara (Sugar).

Kautilya explains the ingredients of different 'Asavas'. He discusses this topic in the chapter *suradhyaksa* (2-25). According to him it is the duty of the superintendent of liquor to look into the manufacture and sale of liquor. Sri L.N.Rangarajan in his work on Arthasastra states that liquor was one of the sources of Revenue. He says "Revenue from sale of alcoholic beverages made in state undertakings and sold in drinking places under the control of the chief controller of Alcoholic beverages was calculated by taking into account the transaction tax, the countervailing duty and the sticking allowance" (p.261). Thus it is clear that 'Drinking liquor' was not prohibited by Kautilya the great statesman and he discusses, in his magnum opus Arthasastra its medicinal values.

The liquors mentioned in both C.S. and K.A. are given below in the table.

	K.A.	C.S.
1.	Sura, Svetasura, Sahakarasura, Rasottara, Bijottara, Mahasura (Sambhariki)	1. Sura
2.	Asava	2. Surasava, Madhvasava
3.	Madhu	3. Madhu

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4. Maireya	4. Maireya
5. Arishta	5. Arista

Some other liquors mentioned in both are -

KA.	C.S
1. Prasanna	1. Madira
2. Medaka	2. Jagala
	3. Sarakara
	4. Pakvarasa
	5. Sitarasika
	6. Akshiki
	7. Dhatakyabhishuta
	8. Samanda
	9. Madhulika
	10. Sauvirakatushodaka
	11. Amlakanjikam

Kautilya does not explain the medicinal values of these liquors but states that "The Aristas are prescribed by physicians for curing different maladies."[11]

C.S. describes the medicinal value of each liquor in the following way:

"sura is useful as a medicine for those who are weak, have urine problem, suffer from dysentery and piles. It cures 'vata' and is prescribed for revival of milk-flow in a nursing mother and for curing anemia."

"Madira cures 'Hiccough', Asthama, severe cold, cough, hard motion, Aruci (loss of taste) and gas problems."

"The liquor 'Jagala'.is a good medicine for the persons suffering from Rheumatism (*soola*), Diarrhoea (*pravaahika*),

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Swelling (*udarapa*), cough (*kapha*), Gout (*vatha*), Piles (*arsa*) and tumour (*sopha*). It helps digestion."

"'Arista' (a variety of liquor) is a useful medicine for the persons suffering from 'sopha'(Tumour), Arsa, Grahani, panduroga, Aruci, and Jvara (fever). It also cures the diseases caused by 'kapha' and improves appetite and activates the digestive system."

The liquor made by fermenting 'sarkara'(sugar) has the following qualities.

The 'sarkara' Asava is tasty, mildly intoxicative, fragrant, and cures the disease of 'Basti' (*mutrakosa*) bladder. It is good for digestion, when preserved it gets good colour and will be pleasant.

A drink prepared with sugarcane (Ikshu) is thus described.

The Asava 'pakvarasa' is prepared with the juice of sugarcane. This is Hrdya (good for heart), causes proper digestion and good for the patients suffering from 'sosa' (drying up), sopha and Arsa. It saves the men from the bad effects of consuming excess ghee and cures slesma (phlegm).

It seems that 'pakvarasa' is prepared by boiling the Ikshurasa where as another drink 'Sitarasika' is prepared without boiling the sugar-cane juice.

'Sitarasika' is good for digestion. It removes any obstruction from the throat and reduces fats from the body. It also cures tumours, abdominal diseases and piles.

Two varieties of suras are known as *gouda* and *aksiki*. The former is made out of *guda* and the latter from *vibhitaka* (Terminalia Belerica).

The Gaudasura cures the problems of stools and gases. It also activates the digestive system and keeps it comfortable.

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The sura made of *vibhitaka* cures the *panduroga* (jaundice) and wounds.

Surasava, Madhvasava and Maireya are described together in one sloka.

"The surasava (Tinctureds) causes heavy intoxication. It is tasty, fragrant and cures vata. Madhvasava is pungent. Maireya is sweet and heavy."

According to Dalhana the commentator on C.S., Madhvasava is produced by mixing the jaggery and honey. He quotes the view of *vrddasounaka* about Maireya which is as follows:

A mixture of Asava and sura in a bowl becomes Maireya.

The 'Asava' is produced out of the juice of *dhatakipuspa* (*dhavarra*, or *dhava*). The taste of this juice is 'Astringent'. It is good for heart and stimulates the action of the stomach, (*rocana* - stimulates, *aamaasayaha* means Digestive cavity).

Another variety of Asava which is known as *mrddveekeksurasaasava* is prepared with the juice of grapes and sugarcane. This is good for the body. It does not cause excessive heat.

The Asava prepared with 'Madhu' (honey) is known as 'Madhu'. It is stated by charaka "*madhviti madhupradhaana aasava*". This liquor has the following qualities.

'Madhu' stimulates the digestive system. It is good for heart, gives energy and does not act as an antedote for pitta (bile). The stomach disorder and phlegm will be controlled by 'madhu'. It is sweet, light and reduces the effect of 'gas'.

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The commentary on C.S. quotes from *astangayoga* and states that the liquor *draksasava* is similar (in effect) to *madhu.*

- The sura made of barley is pungent, causes heat in the body and activates *vata* and *pitta*. It is heavy to digest.

The 'sura' mixed with many ingredients in a smaller ratio is known as madhulika.

The 'Asava' prepared with *souvirakatusa*. (Husk of a kind of grain) is known as *souvirakatusodakam*. Its qualities are -

This stimulates the person, causes good digestion, cures heart diseases, jaundice and drives away the worms from stomach. It is good for the persons suffering from *grahani* (dysentery) and *arsa* (piles). A variety of madya is mentioned which is like 'taravani' of Andhradesa. It is Amlakanjikam. This has many good qualities which are as follows:

The high fever is controlled by its touch and the *vata* and *kapha* are cured by drinking this Asava. Thus it may be used as an external and internal medicine. It also cures hard motions and heals oozing wounds.

Thus the 'Asavas' have medicinal values. They also give happiness, strength and drive away fear and grief. The confidence and intellect are boosted by them. But all this is possible only when they are prepared as per the procedure. If an asava is prepared on scientific lines and consumed carefully it is as good as the nectar says C.S.[12]

Thus C.S. gives the details of 'Asavas' and their ingredients whereas Kautilya describes the procedure of manufacturing liquors.

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Manufacture of liquor was legalized. But it was controlled by the superintendent of liquors. Drinking the liquor was not allowed in the houses. The citizens were supposed to take it in the notified areas. Kautilya says, "The superintendent of liquor should see that the trade in wines and ferments was carried on in the fortified town, country etc, through the persons well acquainted with it. The sale and purchase should be through the dealers who are permitted by the king to do it."[13]

Manufacturing of liquor by unlicensed people at different places is punishable. The mixing of various juices should be as per the instruction of physicians.

Thus the chapter on liquor runs with an exhaustive information about the manufacture, sale and purchase of liquors. To avoid prolixity the preparation of one liquor is explained here.

One drona pulp of Masa beans, raw or cooked, with 1-1/3 rice grains, and one karsa of morata should be mixed together for fermenting *kinva.*

The ingredients for preparing *medak* 1Drona of water, 1-1/2 Adhaka of rice grains and 3 prasthas of ferment.

Thus Kautilya has given the details of each liquor mentioned by him (which are listed in the beginning of this paper).

This information reveals the manifold genius of ancient Acaryas. Hence it is the duty of modern Indians to study the ancient scriptures and make use of their knowledge.

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Footnotes

1. आयुर्नाम शरीर जीवयोगावच्छिन्नः कालः ।

2. आयुर्हिताहितं व्याधिर्निदानं शमनं तथा ।
   विद्यते यत्र विद्वद्भिरायुर्वेदः स उच्यते ॥
   Ayurvedabdhisara – 6646

3. शतं जीव शरदो वर्धमानः शतं हेमन्तान्छतमु वसन्तान्
   Atharvaveda-3-11-4

4. अनेन पुरुषो यस्मादायुर्विन्दति वेत्ति च ।
   तस्मान्मुनिवरैरेष आयुर्वेद इति स्मृतः ॥
   Ayurvedabdhisara – 6647

5. उदयनवेन्दुसवर्णावासवदत्ताबलौ बलस्य त्वाम् ।
   पद्मावतीर्मपूर्णौ वसन्तकम्रौ भुजौ पाताम् ॥
   Svapnavasavadatta – 1-1

6. घूर्णयन् मदिरास्वादमदपाटलितद्युती - Magha-2-16

7. प्रकृत्या मद्यमम्लोष्णमम्लं चोक्तं विपाकतः ।
   सर्वं सामान्यतस्तस्य विशेष उपदेश्यते ॥
   Carakasamhita-27-175

8. प्रायशोऽभिनवं मद्यं गुरुदोषसमीरणम् ।
   स्रोतसां शोधनं जीर्णं दीपनं लघुरोचनम् ॥
   Carakasamhita-27-190

9. अन्नं वृत्तिकराणां श्रेष्ठं, उदकं आश्वासकराणाम्, सुराश्रमहराणाम्,
   अम्लं हृद्यानां, मधु श्लेष्मपित्तप्रशमनानाम् -
   Carakasamhita-26

10. धान्यफलमूलसारपुष्पकाण्डपत्रत्वचो भवन्त्यासवयोनयोऽग्निवेश संग्रहेणाष्टौ शर्करानवम्यः । Carakasamhita-25-48

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11. चिकित्सकप्रमाणाः प्रत्येकशो विकाराणामरिष्टाः । K.A. 2-25-21

12. Carakasamhita -27-176 to 191.

13. K.A. 2-25-1

Abbreviations:

C.S. – Carakasamhita

K.A. – Kautilya's Arthasastra

✡ ✡ ✡ ✡ ✡

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Arthasastra and Ecology

No micro-organism, plant or animal species including man is an isolated organism living in a void. Each of them is surrounded by a host of physical conditions that can be measured in terms of chemical composition, texture, pressure, temperature, and humidity, as well as being surrounded by a host of other living organisms such as microbes, plants, animals, food, parasites and enemies.

This is the scientific explanation of a man and his world. The term ecology (Oekologie) is derived from two Greek words- Oikos-means "house or place to live" and logos means a discussion. Thus 'Ecology' is a study of organisms 'at home' in their native environment. This term though introduced for first time by 'REITER' in 1868 it is fully defined by the German biologist 'ERNST-HAECKEL'. Hence the credit has come to the latter.

The traditional definition of ecology is 'the study of an organism and its environment'. (This information is taken from a book on Ecology as a prologue to this paper)

The roots of ecology lie in the history of nature which is as old as the man himself. The scientists too accepted that the seeds of ecology are found at an early age of vedic period. A book on ecology states that 'the seeds of ecology are found in Indian Classical Writings in the Vedic, Upanishadic, Pauranic and Epic literature (P.5 cell biology, genetics, evolution and ecology, by O.P.S. Verma and O.V.K. Agarwal).

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The same work mentions that Charaka considered the important factors of Vayu (air & gases), Jala (water), Desha (topography) and Kala (time), in resulting the life of plants. It is also mentioned that Kalidasa has displayed his ecological faculty in his classics Rtusamhara, Meghaduta and Sakuntalam (Ibid P.5).

The total life-supporting environment remains restricted to a thin surface zone around our planet earth. This is called the ecosphere or biosphere. The biosphere includes four major environmental categories. They are marine, brakish, freshwater, and territorial habitats.

The branches of ecology are as follows:

1. Habital Ecology : This includes marine ecology, fresh water, and territorial. Territorial has three sub categories - forest ecology, Cropland ecology and grass land ecology.

2. Ecosystem Ecology : This deals with the analysis from structural and functional point of view. It also includes the inter-relationship of physical and biological components of environment.

3. Conservative Ecology : The proper management of natural resources like land, water, forests, sea, mines etc, Come under this category.

4. Production Ecology : This is a modern sub division of ecology which deals with the gross and net production of different ecosystems like fresh water, sea water, agriculture, horticulture, etc. The sole aim of this category is to get maximum benefit out of the natural resources.

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5. Radiation Ecology : This deals with the effects of radiations and radioactive substances which influence the environment.

6. Taxonomic Ecology : This consists of plant ecology, insect ecology etc.

7. Human Ecology : This deals with man and his environment.

8. Space Ecology : This is extra terrestrial ecology.

9. Systems Ecology : A modern branch of ecology.

Ecology-Human life : Man is himself a living organism within an environment. He is influenced by his environment and dependent on other species for his food, clothing, medicine and other similar needs of life. But an irregularity in the proportions of the things in nature leads to ruin human life including the nature around him. The use of chemical poisons, discarded chemicals and belting the industrial and other wastes into water resources result in atmospheric pollution and leads to long term ecological effect. Hence, the study of ecology has become must for the modern man.

Thus the environmental studies began long back. But, why it was not followed for decades is a matter of concern. Now the slogans rule the world but its effect is questionable. Acarya Kautilya is a great visionary who has embedded the valuable information in his work.

The ecological matter available in Arthasastra may be put under these categories which are as follows:

1. Habital Ecology
2. Ecosystem Ecology

3. Conservative Ecology
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4. Production Ecology
5. Human Ecology

For the convenience of Arts faculty these topics are discussed under topics as mentioned.

1. Land, 2. Water, 3. Forests, 4. Man & Animals, 5. Man and Birds.

The earth is the mother of all the beings as it bears all of them on her lap-surface. In this earth resides man along with his co-organisms i.e. beings. Man is a being who can change his living according to the seasons and who adopts himself to the nature. He is influenced by the environment where in he lives. He can make the environment healthy or unhealthy with his effort. He is gifted with some extra talent than all other beings. Therefore, the purity or pollution of environment depends upon the man. It is the duty of man to protect the land, water, forests (the greenery) to stay in a comfortable manner along with other beings. The land, water, and forests are the common property of human beings, animals and birds. Hence they are to be distributed among these three. Man can take help of the animals and birds but is not supposed to injure them. He should realise the inter-relationship between him and other beings. Then only a serene atmosphere prevails around him. All these are explained by Kautilya in a very systematic manner. Now the views of Kautilya as expressed in Arthasastra are going to be discussed here.

1. Land : The first step to survive in this world is the sufficient space to live in. The over crowded population causes all sorts of problems. The scarcity of place causes competition for shelter followed by a struggle for food etc. Therefore,

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maintaining the balance in population is a must. All these according to Kautilya, are the duties of a King, the administrator. The administrator should look into all such affairs. Hence, at first the population in different areas is to be observed. If the population is not in confirmity with the resources, the administrator should send the excess to the places where the population is thin.[1] Here Kautilya used a word *Abhishyanda Vamana,* which means shifting the people from one area to another area. This word is used in the same sense by Kalidasa in Raghuvamsa. Abhishyanda means *"Atiriktajanah Tasya Vamanam aharanam"* comments Mallinatha on it.[2]

The small villages are to be established with a minimum of hundred families. The distance between such two villages should be not more than two Krosas (4,500 yards). The border of these villages are to be fixed by one of the following - rivers, mountains, forests, pebbles, cave, an embankment, Samitree, Salmalitree, and Asvattha. The krosa means raising voice for help also. Therefore, the distance should be within the reach of a cry for the help. The detailed description about the establishment of cities, towns, head quarters etc, is given in Arthasastra. After allotting the land for the villages etc, the remaining lands should be distributed for various purposes. The cultivated lands will go to the cultivators and the non-cultivated lands are to be distributed for other purposes. The process of this distribution according to Kautilya is as follows:

The land unsuitable for cultivation should be allotted for pastures, ascetics, vedic studies, soma sacrifices and hermitages.[4] They should be well guarded. As observed in ancient Indian literature, the kings used to come to enquire the well-being of Vedic institutions and hermitages. They used to kill the wild

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animals and demons who cause the disturbance in peaceful forest life. Some part of land should be allotted for a pleasure garden for the king. It should have the animals deprived of nails, tusk which are injurious and should have thornless and fruit yielding trees. A moat should be dug around the garden. A park with all foreign animals should be maintained in the outskirts.[5]

The forest areas should be utilised for the maintenance of the different species of trees. The trees of same class should be in one forest like sandal forests, teak forests etc. A separate forest suitable for the elephants should be maintained on the borders.[6] The elephants are of high value whether alive or dead. They are very useful in breaking and lifting the heavy things.

Thus the greenery should be maintained. No piece of land should be wasted. Thick forests are the means of rains. The forest material is one of the sources of income which is termed as Kupya. A detailed picture is given under the topic 'forest'.

This description throws light on the maintenance of environment in ancient India.

The residences: The city or village layout has a major role in the topic of ecology. A proper muncipal plan keeps the pollution away. Otherwise, the whole thing appears jigjag and leads to a state of confusion. A perfect layout plan is given by Kautilya in his Arthasastra (2-4-3). Royal palaces, residences for officials, businessmen, artisans etc, should be constructed as per the rules. The graveyard should be either to the east or to the south. The corpses should be taken through the specified gate. For carrying a corpse through other than the specified gate or for performing funeral rites in other than the grave yard the punishment is the first fine for violence.[7] All these come under the town-planning in modern times.

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The description about fire proof and lightning proof is very interesting in Arthasastra. The effect of these is to be tested by the modern scientists. The description is as follows:-

The fire produced out of human bones taken around the residence works as a fire-proof. No other fire catches it. Similarly the ashes of an object smashed by the lightning with the mixture of water in which gold and clay are kept, work as the lightning-proof[8] (would not get affected by the thunder bolt).

The highways should be wide and there should be separate paths for different categories like pedestrians etc. The highways should be forty eight feet in width, the by-lanes twenty four feet and roads to tanks and forests twelve feet. The same area for elephant path and road to fields. For chariots five aratnis, for animals like cow etc, six feet, (four Aratnis) to small animals and human beings three feet. Thus the accidents may be avoided by providing separate paths to each category.[9]

The paths for horses and chariots may now be considered for two wheelers and the path of elephants for cars. Thus the traffic can be controlled.

The pollution control

In ancient India not only the authorities but the citizens too had a responsibility in beautifying the city and controlling the pollution. The measures to be taken for pollution control are as follows -

Each house should have clear boundary either with iron wires or with pillars.[10] There should be a gap of three padas between the compound walls of two houses. Each house should have a dung-hill, water-course in a suitable place so as not to cause inconvenience to the neighbour.[11] There should be a water

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outlet on festive occasions. Otherwise, the owners are punishable.[12] There should be a waste-water outlet (Nala) three padas away from neighbouring house. For the transgression of the rule the fine is fifty four panas.[13] The carts, cow-stalls, fire places, grinders etc., should be placed at least one pada away from the neighbouring house.[14]

Digging ditches, constructing staircase, water-channel and dunghill outside of the house is considered as social violence. Therefore, the punishment is purvasahasa danda.[15] A water pipe should be provided for the release of rainy water. Otherwise, the fine is twelve panas.[16]

Maintenance of the roads

It is not possible to maintain the neatness on the roads without the co-operation of the subjects. They should take care of such things because, ultimately they are the sufferers. Kautilya lays punishments for throwing dirt on the roads. The description of fines for such behaviour in Arthasastra is as follows.

For throwing dirt on the road - One eighth of a pana.

For pouring muddy water - One quarter Pana.

For spoiling the highway in the above manner the fines are double the above prescribed .[17]

For throwing the dead body of a donkey or a camel or a horse or a cattle - the fine is six Panas.[18]

For spoiling the temple with forces the fine is three Panas, for spoiling with urine the fines are half the above mentioned.

Thus Kautilya's Arthasastra suggests the importance of the clean environment and the land ecology.

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Singapore is well known for the cleanliness of the city in modern times. But this was not new to the Indian system. The Kautilyan administration took care of every branch of social structure. There were strict rules to be followed by the citizens for the maintenance of the roads.

2. Water : The water is one of the basic needs of human life. The water pollution is not found mentioned in ancient works. The fish, crocodiles were kept in the tanks, rivers so as to clean it. According to Arthasastra the reservoirs should be constructed to preserve the water that springs from the rain.[20] If there is no rain then water from other sources should be irrigated and preserved.[21] The persons who take an initiative in such works should be encouraged and provided with help. In the places devoid of tanks, canals etc, the wells or water tankers should be constructed. These are the steps which protect from the draught.

In case of drought the subjects should be shifted to a place where there are natural resources like seas, rivers, etc, for their livelihood.[22]

For spoiling the places of water with faeces or urine the offenders should be punished.[23]

Breaking the dam is a crime. For such offence the punishment is death by drowning him on the spot.[24]

Now, what would be the suitable punishment for the Engineer / contractor who is the cause of the damage of bridges by using the low quality material.

Pure water gives a good health. Hence, the water is to be purified and maintained. Though Kautilya does not say it in an explicitary manner but it is suggested through his work.

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3. Forests : The conservation ecology is discussed in detail in Arthasastra.

According to Kautilya the trees in the forest are classified into the following categories.

1. *Saradaruvarga* - The group of precious wood
2. *Venuvarga* - The group of reeds
3. *Vallivarga* - The group of creepers
4. *Valkavarga* - The group of fibres
5. *Rajjubhandam* - The material for rope making
6. *Patram* - The material used as paper
7. *Pushpam* - The flowers used in dying
8. *Aushadha Varga* - Medicinal plants and herbs
9. *Vishani* - Poisonous plants[25]

The trees act as security guards in the court yards. As mentioned in Arthasastra, Pushpavanda tied together with Asvattha leaves prevent the entry of poisonous creatures.[26] The leaves of a kind of mango, the grape etc, are used in the preparation of liquor which was not harmful. Kautilya has laid punishments for cutting the shoots or branches of the trees. According to him such deeds are equal to physical injury to human beings. Therefore, he has discussed this topic in chapter 'Danda Parushya'.

The punishment for injuring the trees according to Arthasastra is as follows:

For cutting the shoots of tress (in parks) which yield flowers, fruits, and shade, the fine is six panas. For cutting small branches twelve Panas, for cutting strong branches twenty four Panas, for destroying the trunk the lowest fine for violence and for uprooting the trees the middle fine for violence.[27]

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For the same offences in the case of bushes, creepers yielding flowers, and fruits the fines are half the above mentioned. In case of tress in holy places, sanctuaries and hermitages also the fines are half the above mentioned.[28]

The fines are double to that of above mentioned (under foot note No. 27) in case of the trees at the boundaries, sanctuaries, marked (numbered) ones, and of the royal garden.[29]

Thus the conservative ecology depicted in Arthasastra focuses on the awareness and maintenance of environment in Ancient India.

4. Man-Animals : The animals are mainly of two categories - domestic and others. Domestic animals like cow, ox, etc, are directly connected with human-life. The animals like horse, donkey, etc, are useful in the physical work. Hence, they are to be treated with proper care. Kautilya does not allow ill-treating or injuring the animals. According to him the animals should be controlled either with a rope or with a whip. For using other than these two the owner is to be punished. For injuring the animals the fines are as described for the physical injury of human beings.[30] If the animals graze in other's lands, punishment is for the owner only not to the animal. The animals should be driven out, without causing injury to them.[31]

The special parks or forests for animals with all sorts of security are called "*Abhayavanas*". No one should injure animals in the forests. The fish of various forms found in the ocean are not to be killed.[32] The elephants in the forest should not be killed. If anyone kills an elephant for the tusk, the punishment is death.[33]

The animal stalls should be kept clean. There are employees to take care of animals like elephants and horses. (A list is given

in the concerned chapters of Arthasastra). The food for animals is also prescribed by Kautilya.
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The cowherds should milk the cows twice in rainy seasons, autumn and winter and only once in remaining seasons. For the transgression of the above rule the punishment is cutting off the thumb. For milking in odd hours also the cowherds should pay a fine equal to what they have gained out of milk.[34] The cowherds should take care of the young, old and ailing cows.[35]

The superintendent of slaughter house should have a watch over the meat-shop owners. If anyone kills the birds and animals which are exempted from killing by the royal order, he should be punished in accordance with the offence. For arresting, killing or injuring the animals, birds, fish in the animal parks the punishment is highest fine for violence.[36]

The employees in the horse-stalls should take care of the horses. Otherwise, their wages should be deducted. The workers in the elephant stall should look after it well. For not cleaning the stall or making the elephant lie on the bare ground or injuring it the punishment is loss of the wages.[37]

Thus the animal world is given much importance by Kautilya.

5. Man-Birds : The birds have so much of importance in human life as they can enter even the inner apartments. They in fact act as body guards by indicating bad time, entry of poisonous creature and food poisoning. The birds know the ground, water and air very closely as they can reach all these places. Kautilya says that the birds should be kept in the Royal Palace for the protection of the king. Because the birds shrink when they suspect poison. The detailed picture about this as found in Arthasastra is as follows-

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The peacock eats the serpents. By seeing the poison the birds parrot, starling, a kind of large bee faints, the jivanjivaka become pale, the cuckoo dies, and the eyes of cakora become red.[38] Thus the birds help the man in times of danger. Probably this is the reason behind the custom of offering food to fire and birds.[39] According to Indian tradition some birds are auspicious. Kautilya gives a list of such birds and lays punishments for catching or killing them. The details are as follows :

The *Kraunca* (curlew), *Utkrosaka* (Osprey), *Datyuha* (gallinule), *Hamsa* (Swan), *Chakravaka*, *Bhringaraja* (large bee), *Cakora*, Cuckoo, Peacock, Parrot, *Jivanjivaka* and *Madana Sarika* are auspicious and they are the birds for sport. If they are not protected the punishment is the lowest fine for violence.[40]

Similarly some birds are pleasant in colour. They should also be protected. For stealing such birds from parks and for catching or killing them the fines are double the value of the birds.[41]

Thus the birds help the man for which he has to reciprocate by protecting them.

Kautilya's observation of the world is admirable. He mentions some offences which are felt as simple but the seriousness is never thought of. To put the man in a neat frame of discipline Kautilya lays punishments for misbehaviours.

According to him any one touching the other with impure hand is punishable. The punishments are as follows :

For touching with mud or ashes or dust below the novel the fine is three Panas.

For touching with dirty things or with foot or with spittle the fine is six Panas, with vomit, urinate or ordure the fine is twelve Panas.[42]

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For the same offances in case of the upper part of the body the fines should be doubled. Now with Covid-19 all these are to be avoided. But this was not the case in ancient India. The steps for good health were already taken.

Thus Arthasastra of Kautilya not only explains ecology which directly influences the human life, but also insists upon the maintenance of the healthy environment by imposing strict rules.

There is no wonder that ecology is also discussed in Arthasastra because, it is a compendium of all the sastras as stated by the author himself.

Finally the idea is the maintenance of the environment is the responsibility of the administrator. Therefore the wish may be expressed in the words of Kautilya.

"May the king encourage the people who undertake the constructions of bridges and who beautify the city and protect it. May he always be helpful to such persons".[43]

Footnotes:

1. भूतपूर्वमभूतपूर्वं वा जनपदं परदेशापवाहनेन स्वदेशाभिष्यन्दवमनेन वा निवेशयेत् 2-1-1

2. या सौराज्यप्रकाशाभिर्बभौ पौरविभूतिभिः ।
स्वर्गाभिष्यन्दवमनं कृत्वेवोपनिवेशिता ॥ R.V. 15-29

3. शूद्रकर्षकप्रायं कुलशतावरं पञ्चशतकुलपरं ग्रामं क्रोशद्विक्रोशसीमान-मन्योन्यारक्षं निवेशयेत् । नदीशैलवनागृष्टदरीसेतुबन्ध शाल्मलीश-मीक्षीरवृक्षानन्तेषु सीम्नां स्थापयेत् । (गृष्टि = शून्यवाटिक, (मेदिनी)) K.A. 2-1-2

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4. अकृष्याया भूमौ पशुभ्यो विवीतानि प्रयच्छेत् । प्रदिष्टाभयस्थावरजङ्गमानि च ब्रह्मणेभ्यो ब्रह्मसोमारण्यानि, तपोवनानि च तपस्विभ्यो गोरुतपराणि प्रयच्छेत् । तावन्मात्रमेकद्वारं खातगुप्तं स्वादुफलगुल्ममकण्टकिद्रुम-मुत्तानतोयाशयं दान्तमृगचतुष्पदं भग्ननखदंष्ट्रव्यालंमार्गायुकहस्ति-हस्तिनीकलभं मृगवनं विहारार्थं राज्ञः कारयेत् । (मार्गायुक = beasts of prey) 2-2-1

5. सर्वातिथिमृगं प्रत्यन्ते चान्यन्मृगवनं भूमिवशेन वा निवेशयेत्। 2-2-2

6. उत्तरपूर्वो वा श्मशानवाटः । .... तस्यातिक्रमे पूर्वः साहसदण्डः । K.A. 2-4-5

7. मानुषेणानिग्नना त्रिपरसव्यं परिगतमन्तःपुरमग्निरन्यो न दहति, न चात्रान्योऽग्निर्ज्वलति, वैद्युतेन भस्मना मृत्संयुक्तेन कनकवारिणाऽवलिप्तं च । K.A. 1-19-3

8. चतुर्दण्डान्तरा रथ्याः । राजमार्ग.....अष्टदण्डाः । चतुर्दण्डः सेतुवनपथः । द्विदण्डो हस्तिक्षेत्रपथः । पञ्चारत्नयो रथपथश्चत्वारः पशुपथो द्वौ क्षुद्रपशुमनुष्यपथः। (अरत्नि = twenty four angulas) K.A. 2-4-2

9. कर्णकीलायससम्बन्धोऽनुगृहं सेतुः । K.A. 3-8-3

10. अवस्करं भ्रममुदपानं वा न गृहोचितादन्यत्र । तस्यातिक्रमे पूर्वः साहस दण्डः । K.A. 3-8-5

11. कल्याणकृत्येष्वायामोदकमार्गाश्च । K.A. 3-8-6

12. त्रिपदीप्रतिक्रान्तमध्यर्धमरत्निं वा प्रवेश्य गाढप्रसृतमुदकमार्गं प्रस्रवणप्रपातं वा कारयेत् । तस्यातिक्रमे चतुष्पञ्चाशत्पणो दण्डः । K.A. 3-8-7

13. एकपदीप्रतिक्रान्तमरत्निं वा चक्रिचतुष्पदस्थान मग्निष्ठमुदअरस्थानं रोचनीं कुट्टनीं वा कारयेत् । तस्यातिक्रमे चतुर्विंशतिपणो दण्डः । K.A. 3-8-8

14. खातसोपान प्रणाली निश्रेण्यवस्कर भागैर्बाहिर्बधायां भोगनिग्रहे च ॥
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K.A. 3-8-12

15. प्रणाली मोक्षो वर्षति । अन्यथा द्वादशपणो दण्डः । K.A. 3-8-14

16. पांसुन्यासे रथ्यायामष्टमभागो दण्डः । पङ्कोदकसन्निरोधे पादः । राजमार्गे द्विगुणः । K.A. 2-36-15

17. मार्जारश्वानकुलसर्पप्रेतानां नगरस्यान्तरुत्सर्गे त्रिपणो दण्डः । खरोष्ट्राश्वतराश्वपशुप्रेतानां षट्पणः । मनुष्यप्रेताणां पञ्चाशत्पणः । K.A. 2-36-18

18. पुण्यस्थानोदक देवगृहराजपरिग्रहेषु पणोत्तरा विष्ठादण्डाः । मूत्रेष्वर्धदण्डाः । K.A. 2-36-16

19. सहोदकमाहार्योदकं वा सेतुं बन्धयेत् । K.A. 2-1-20

20. अनुदके कूपसेतुबन्धोत्सान् स्थापयेत् । K.A. 2-34-8

21. समुद्रसरस्तटाकानि वा संश्रयेत । K.A. 4-3-19

22. उदकस्थान, पणोत्तरा विष्ठादण्डाः । K.A. 2-36-16

23. उदकधारणं सेतुं भिन्दतस्तत्रैवाप्सु निमज्जनम् । K.A. 4-11-11

24. कुप्यवर्गः

    1. शाकतिनिशधन्वनार्जुनमधूकतिलकसालशिंशपारिमेदराजादन शिरीषखदिरसरल तालसर्जाश्वकर्ण सोमवल्ककशाम्रप्रियकधवादिः सारदारुवर्गः।
    2. उटजचिमियचापवेणुवंशसातीनकण्टकभाल्लूकादिर्वेणुवर्गः ।
    3. वेत्रशीकवल्कीवाशीश्यामलतानागलतादिर्वल्लीवर्गः ।
    4. मालतीमूर्वार्कशणगवेयुकातस्यादिर्वल्कवर्गः ।
    5. मुञबल्बजादि रज्जुभाण्डम् ।

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6. तालीतालभूर्जानां पत्रम् ।

7. किंशुककुसुम्भकुंकुमानां पुष्पम् ।

8. कन्दमूलफलादिरौषधवर्गः ।

9. कालकूटवत्सनाभहालाहलमेषशृङ्गमुस्ताकुष्ठमहाविष वेल्लितक-गौरार्द्रबलकमार्कटहैमवतकालिङ्गकदारदकाङ्कोलसारक्रोष्ट्रकादी-नि विषाणि । K.A. 2-17-2-2-6

25. जीवन्ती श्वेतामुष्ककपुष्पवन्दाकाभिरक्षीवे जातस्याश्वत्थस्य प्रतानेन वा गुप्तं सर्पा विषाणि वा न प्रसहन्ते । K.A. 1-19-4

जीवन्ती = Faederia Foetrda, श्वेत = Aconitum feron, मुष्कक = ¿ (not known), वन्दाका = Epidendrum Tesselatum, अश्वत्थ = Ficus Religiousa.

26. पुरोपवनवनस्पतीनां पुष्पफलच्छायावतां प्ररोहच्छेदने षट्पणः । क्षुद्रशाखाच्छेदने द्वादशपणः । पीनशाखाच्छेदने चतुर्विंशतिपणः । स्कन्धवधे पूर्वः साहसदण्डः । समुच्छित्तौ मध्यमः ।

K.A. 3-19-28

27. पुष्पफलच्छायावद्गुल्मलतास्वर्धदण्डः । पुण्यस्थानतपोवनश्मशानद्रुमेषु च । K.A. 3-19-29

28. सीमवृक्षेषु चैत्येषु द्रुमेष्वालक्षितेषु च ।
त एव द्विगुणा दण्डाः कार्या राजभवनेषु च ॥ K.A. 3-19-30

29. पशवो रश्मिप्रतोदाभ्यां वारयितव्याः । तेषामन्यथा हिंसायां दण्डपारुष्यदण्डाः । K.A. 3-10-20

30. अभयवन मृगाः परिगृहीता वा भक्षयन्तः स्वामिनो निवेद्य यथाऽवध्यास्तथा प्रतिषेध्दव्याः । K.A. 3-10-19

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31. सामुद्रहस्त्यश्वपुरुषवृषगर्दभाकृतयो मत्स्याः सारसा नादेयास्तटाक-कुल्योद्भवा वा । K.A. 2-26-5

32. हस्तिघातिनं हन्युः । K.A. 2-2-4

33. बालवृद्धव्याधितानां गोपालकाः प्रतिकुर्युः । K.A. 2-29-14

34. वर्षाशरद्धेमन्तानुभयतः कालं दुह्युः । शिशिरवसन्तग्रीष्मानेक कालम्। द्वितीयकाले दोग्धुरङ्गुष्ठच्छेदो दण्डः । K.A. 2-29-21,22

35. सूनाध्यक्षः प्रदिष्टाभयानामभयवनवासिनां च मृगुपक्षिमत्स्यानां बन्धवध हिंसायामुत्तमं दण्डं कारयेत् । K.A. 2-26-1

36. क्रमातिक्रमे चौषां दिवसवेतनच्छेदनं कुर्यात् । K.A. 2-30-26

37. स्थानस्याशुद्धियवसस्याग्रहणं स्थले शायनमभागे घातः । परारोहण-मकाले यानभूमावतीर्णेऽवतारणं तरुषण्ड इत्यत्ययस्थानानि । K.A. 2-32-11

38. मयूर सर्पान् यक्षयति । शुकः शारिका भृङ्गराजो वा सर्पविषशङ्कायां क्रोशति । क्रौञ्चो विषाभ्याशे माद्यति । ग्लायति जीवञ्जीवकः, म्रियते मत्तकोकिलः । चकोरस्याक्षिणी विरज्येते । इत्येवम् अग्निविषसर्पेभ्यः प्रतिकुर्वीत । K.A. 1-19-4

शारिका = Mina, भृङ्गराजः = Malbar birds, क्रौञ्च = Meron, जीवञ्जीवक = Pheasant, मत्तकोकिलः = Cuckoo, चकोर = Patridge

39. तद्राजा तथैव प्रतिभुञ्जीत, पूर्वमग्नये वयोभ्यश्च बलिं दत्त्वा । K.A. 1-20-3

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40. क्रौञ्चोल्लोशकदात्यूह चक्रवाक जीवञ्जीवक भृङ्गराजबलेर मत्तकोकिल-मयूरशुकमदनशारिका विहारपक्षिणो मङ्ल्याश्चान्येऽपि प्राणिनः पक्षिमृगाः हिंसाबाधेभ्यो रक्ष्याः। रक्षातिक्रमे पूर्वः साहसदण्डः।

K.A. 2-26-5

41. बिम्बविहारमृगपक्षिस्तेये हिंसायां वा द्विगुणो दण्डः । K.A. 4-10-4

42. K.A. 3-19-2,3

43. राजा देशहितान् सेतून् कुर्वतां पथिसंक्रमान् ।
ग्रामशोभाश्च रक्षाश्च तेषां प्रियहितं चरेत् ।

K.A. 3-10- concluding verse

Abbreviations

K.A. – Kautilya's Arthasastra, Ed. By Vacaspatigairola

R.V. – Raghuvamsa of Kalidasa

पूर्वसाहसदण्डः = चत्वारिंशत्पणावरः षण्णवतिपरः पूर्वः साहसदण्डः ।
= 48 - 96 panas

मध्यमसाहसदण्डः = द्विशतावरः पञ्चशतपरः मध्यमःसाहसदण्डः ।
= 200 - 500 panas

उत्तमसाहसदण्डः = पञ्चशतावरः सहस्रपरः उत्तमः साहसदण्डः ।
= 500 - 1000 panas

K.A. – 3-17-3

साहसम, अन्वयवत् प्रसभकर्म ।

पणः = 16 masas = 4 copper + 11 silver + 1

✡ ✡ ✡ ✡ ✡

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The Glimpses of Botany (Vriskhasastra) in Arthasastra

The Hindu doors welcome the Guests with the arches and strings made of leaves. Though the leaves are not changed every day by the house- holders they are changed definitely on festive occasions. The dried leaves will be removed from the strings and fresh leaves will be tied to the gates. This tradition is considered as auspicious. But only a few are aware of the scientific reason behind the tradition. It is very interesting to note that Kautilya's Arthasastra explains in detail about the leaves which are to be tied at doors. Kautilya, the great scholar, statesman and the author of Arthasastra was not only a scholar in polity, economics and commerce but also was well acquainted with the sciences. The description of various topics pertaining to various branches of knowledge reveals the manifold knowledge of the great author. Wherever a discussion of duties of head of the department takes place, there the author gives the detailed information about the field taken care of by the department. Thus he has dealt with many Sastras such as Vastusastra, Jyotisha, Bhutattva, Yantra, Vaidya, Dhanurveda, Gaja, Asva, Silpa, Rasayana, Krsi and Vrksasatra etc. The details of various trees and plants etc, pertaining to Vrikshasastra are discussed in detail in Kautilya's Arthasastra. This information focuses on 'Sciences in Ancient India' which would be helpful in the development of present India if brought into lime light by a practical study.

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As mentioned at the outset, Kautilya gives a list of trees the leaves of which are to be strung at the doors. These leaves ate the real security guards to the inmates which protect them from poisonous creatures.

According to Kautilya, the serpents or poisonous creatures do not enter a residence where a string of shoots of *Asvattha* or *Jivanti* or *Svetamushkaka* or *Pushpavandaka* is tied.[1]

Kautilya gives much importance to forests. He says that the non-cultivated lands are to be allotted for animals, to vedic scholars and to sages. Some part of such land should be converted into a pleasure- garden for the king. The trees devoid of thornes and which yield tasty fruits should be planted.

There should be a separate animal park in which the tamed animals are kept. Another park also should be there in which the animals brought in-from foreign lands are kept in.

Thus the non-cultivated land was utilised in ancient India where people used to have fresh air to breath in. The trees have an important role in a country as they constitute one of the sources of royal income.

The income is mainly classified into two. One is *Kupya* the other kind is *Akupya*. *Akupya* is in the form of taxes, revenue etc., while the forest produce constitutes the *Kupya* income.

The varieties of precious forest products are described in a detailed manner by Kautilya.[2]

At first the forest trees, creepers etc, are classified into Nine Categories, which is as follows:

1. Saradaruvarga : (Strong wood)

Saka, Tinisa, Dhanvana, Arjuna, Madhuka, Tilaka, Sala, Simsapa, Arimeda, Rajadana, Sirisa, Khadira, Sarala, Tala, Sarja,

Asvakarana, Somavalka, Kasa, Amra, Priyaka, Dhava etc, come under the strong wood which is used in the construction of houses and making furniture. Some of these trees are mentioned in *Samarangana Sutradhara* also.

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2. Venuvarga (Bamboo) :

There is various types of Bamboo which is used to prepare various articles. The name itself denotes the thing with which it is made. They are utaja, cimiya, capa, venu, vamsa, satina, kantaka, bhalluka etc.

3. Vallivarga (Creepers) :

Vetra, Sikavalli, Vashi, Syamalata, Nagalata etc.

4. Valkavarga (Fibres) :

Malati, Murva, Arka, Sana, Gavethuk, Atasi etc.

5. Rajjubandham : (Material for ropes)

Munja, Balbaja etc.

6. Patram : (Writing material)

Tali, Tala, Bhurja, etc.

7. Puspam (Flowers used in dyeing) :

Kimsuka, Kusumbha, Kumkuma etc.

8. Ausadhi Varga (Herbs) :

Kanda, Mula, Phala etc.

9. Visavarga (Poisonous plants)

Kalakuta, Vatsanabha, Halahala, Mesasrunga, Musta, Kustha, Mahavisa, Vellitaka, Gaurardra, Balaka, Markata, Haimavata, Kalingaka, Daradaka, Ankolasaraka, Austaraka etc. Even the dried grass and wood come under forest produce.

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Having given a general classification of entire forest produce, he gives a detailed description of various types of trees, herbs, leaves etc, in different chapters in accordance with the context.

For example, the varieties of aloe and sandal wood are explained in the chapter "Testing the gems that are to be taken into treasury" (Kosapravesya Ratna Pariksa). Similarly the properties of some leaves are described in the chapter "The activities of chief of goldsmith in gold work-shop".[3]

The aloe and sandal wood are very precious. Therefore, Kautilya has discussed about these two along with gems etc, in the same chapter. According to him the superintendent of treasury should see the genuineness of things that are to be taken in to treasury.

According to Kautilya the qualities of good sandal wood are eleven. They are -

1. Light, 2. Soft, 3. Moist, 4. Greasy, 5. Adhesive to the skin, 6. Fragrant odour, 7. Entering in to skin, 8. Of mild smell, 9. Having good colour, 10. Pacifying the heat in body, 11. Soothing touch.

There are many varieties of sandal wood. Their colour, odour, nature, varies according to the place where they grow. They grow in sixteen regions. They are available in nine different colours and with six types of odours.

A table is given below for more details :

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	Name of the place where it is produced	Colour	Odour
1.	Satana	Red	of the earthy odour
2.	Gosirsa	Black and Red	Fish
3.	Hari	Parrot green	Mango odour
4.	Bank of Trnasa	Parrot green	Mango odour
5.	Grameru	Red or Red black	Odour of goats urine
6.	Devasabha	Red	Lotus fragrance
7.	Jovaka	Red	Lotus fragrance
8.	Jongaka	Red or Red Black	Lotus fragrance
9.	Turupa	Red or Red Black	Lotus fragrance
10.	Malaya	Pale Red	Lotus fragrance
11.	Kucandana	Black	Cow's Urine
12.	Kalaparvata	Rough Black like aloe red or red black	Cow's Urine
13.	Kosakara Parvata	Black or mixed of black	Cow's Urine
14.	Sitodaka	lotus colour or soft black	Cow's Urine
15.	Nagaparvata	Hard	Cow's Urine
16.	Sakala	Yellow –red	Cow's Urine

Thus having explained about the sandal wood, Kautilya explains the varieties and qualities of the aloe which are as follows:

There are eight qualities of aloe. They are - weight, softness, fragrance, spreading for a distance, burning well, without thick smoke, releasing the uniform fragrance, retaining the fragrance when rubbed.

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The places where aloe is produced, their colours and odours are given below.

	Place	Colour	Smell
1.	Jongaka	Black or mixed black with white spots	Fragrance of Navamatika
2.	Dongaka	Black	
3.	Near Seashores	Mixed colour	

Of the names of the places mentioned above some are in *Malaya* region and some are in Assam and some are in the islands of *Sumatra*, *Java* etc.

For example, Javaka and Turupa are in Kamarupa. (for details see K.A. of R.P. Kangle P.116).

The trees have an important role in tracing the gold mines. According to Kautilya the places where the fluids are found in the colour of following trees (fruits) are to be known as gold-ores. These trees are - *Jambu* (Jamoon), *Cuta* (Mango), *Talaphala* (Palm fruit).

Kautilya explains the trees that are used to purify the metals. He gives many details about them in the chapter "The duties of the Superintendent of Mines.". According to him the mixture of (leaves of) the trees *Rajavrksa, Vata, Pilu, Gorocana* with the urine of buffalo or an ass etc, is used in purifying the raw-gold just procured from the mines[4]. The plants of Yava, Masa, Tila, Palasa and Pilu mixed with salt and milk of cow or goat, is used to give shining to gold items. This process is called *Mardavakara*.[5]

There is a very interesting description of preparation of a particular juice, which according to R.P. Kangle is a type of *vinegar* (K.A. by R.P. Kangle P.141.).

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Sugar-cane juice, Jaggery, Honey, Treacle, the juice of Jambu fruit, the juice of Panasa fruit are used in this preparation.

Any one of the above mentioned infused with a decoction of *Mesasringi* and long pepper, kept for one month or six months or an year and then mixed with *Cidbhita, Urvaruka,* Sugarcane stick, mango fruit and myrobalan, constitute fermented juice which may be used as vinegar.

The pure silk is also one of the costly forest produce, which is described in the same chapter *'Kosa pravesya Ratnapariksa.'* Kautilya explains the precious forest products in which the skins of animals and wool are also listed. It is very interesting to note that the wool produced in Nepal was already popular by Kautilya's time. A water proof variety is also mentioned by Kautilya in his Arthasastra.

It is to be noted that Kasmiri shawls also mentioned in Arthasastra. According to him a type of cloth Dukula produced in Vanga (Bengal) is white and smooth[6]. The word 'dukula' is probably the prakritised form of 'Dvikula' a cloth with border on two sides. *Suvarnakudya* is a region in Kashmir[7]. There is a variety of silk which is known as *patrorna* in Kautilya's Arthasastra. 'Patrorna' means wool made of the leaf, may be the silk by the worms nourished on those leaves.

This silk is produced in *Magadha, Paundraka* and *Suvarnakudya* of which the last one is best (Kashmir silk is well known for its fineness even today).

The trees which are the source of this patrorna are, Naga tree, likuca, bakula and banyan tree. The silk produced from the naga - tree is yellow, from the likuca is wheat coloured (brown), from Bakula is white and from the banyan is of the colour of the butter.

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According to Jessen there are 12 kinds of silk worms in India and the trees favoured by them are badari, eranda and pippla[8].

The trees are not only the sources of silk but are also of cotton. The cotton fabrics are not discussed by Kautilya in detail.

He states in brief that the cotton fabrics from Madhura, Aparanta, Kalinga, Kasi, Vanga, Vatsa and Mahisha regions is the best.

Thus Kautilya has dealt with so many details about *vrksas* which denote his knowledge about vrksa-sastra. There are still many more details which are not discussed to avoid too much elaboration. Dr. Shama Shastry has given the botanical terms of all these trees in his Arthasastra. Thus our ancient Indian works are the treasure troves of scientific knowledge.

Footnotes:

1. जीवन्तीश्वेतामुष्ककपुष्पवन्दाकाभिरक्षीबे जातस्याश्वत्थस्य प्रतानेन गुप्तं सर्पा विषाणि वा न प्रभवन्ति ।

   - अक्षीबे जातस्य K.A. 1-20-5 (Growing on a wet land)

2. कुप्यवर्गः

   1. शाकतिनिशधन्वनार्जुनमधूकतिलक सालशिंशपारिमेदन-राजादनशिरीषख-दिरसरलतालसर्जाश्वकर्णसोमवल्ककुशाम्र-प्रियकधवादिः सारदारुवर्गः ।
   2. उटजचिमियचापवेणुवंशसातिनकण्टक-भाल्लूकादिः वेणुवर्गः ।
   3. वेत्रशीकवल्लीवाशीश्यामलतानागलतादिः वल्लीवर्गः ।
   4. मालतीमूर्वार्कशणगवेधुकातस्यादिः वल्कवर्गः ।

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5. मुञ्जबल्बजादिरज्जुभाण्डम् ।
6. तालीतालभूर्जानां पत्रम् ।
7. किंशुककुसुम्भकुङ्कुमानां पुष्पम् ।
8. कन्दमूलफलादिः औषधवर्गः ।
9. कालकूटवत्सनाभहालाहलमेषशृङ्गमुस्ताकुष्ठमहाविषवेल्लित-कगौरार्द्रबालकमार्कट-हैमवतकालिङ्गकदारदकाङ्कोलसार-कोष्ट्रकादीनि विषाणि । K.A. 2-17 4 to 12

3. The age and strength of the trees depend on its age see स.सू. धा. ch. 16.

खदिरो बीजकः सालो मधूकः शाकशिंशपे ।
सर्जार्जुनाऽनाशोकाः कदरो रोहिणीतरुः ॥
विकङ्कतो देवदारुः श्रीपर्णी पादपस्तथा ।
कुटुम्बिनीनाममी प्रोक्ताः पुष्टिदा जीवदास्तथा ॥
वृक्षाणां लक्ष्यते येषां भारवारिसहिष्णुता ।

- स.सू. धा. Ch. 16-18

4. "विशिखायां सौवर्णिकप्रचारः" K.A. 2-14 Title of the chapter

5. "तेषामशुद्धा मूढ़गर्भा वा तीक्ष्णमूत्रक्षारभाविता राजवृक्षवटपीलुगोपित्त-गोरोचनामहिषखरकरभ मूत्रलेण्डपिण्डबद्धास्तत्प्रतीवापास्तदवलेपा वा विशुद्धाः स्रवन्ति । K.A. 2-12-8

6. यवमाषतिलपलाशपीलक्षारैर्गोक्षीराजक्षीरैर्वा कदलीवज्रकन्दप्रतीवापो मार्दवकरः । K.A. 2-12-9

7. अष्टप्रोतिसंघात्या कृष्णा भिङ्गिसी वर्षवारणमपसारक इति नैपालकम्।
K.A. 2-11-100, P-104 K.A. by R.P. Kangle – Vol II

8. तासां सौवर्णकुड्यका श्रेष्ठा ।
K.A. 2-11-114, P-104 K.A. by R.P. Kangle – Vol II

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1. K.A. – Kautilya's Arthasastra by R.P. Kangle, Vol. I and II, Motilal Banarasidass – 1992

2. Samarangana Sutradhara of Bhoja – Gaekwad Oriental Series No. 25.

3. Kautilya's Arthasastra, English Translation by Dr. R. Shamashastry VIII edn. 1967

Some Botanical Terms of the Trees Given by Dr. Shamashastry

जीवन्ती	-	Faederia Foetsda
वन्दक	-	Epidendrum Tesselatum
अश्वत्थ	-	Ficus Religiosa
शाक	-	Teak
तिनिश	-	Dalbergia Cugeinensis
अर्जुन	-	Terminalia Arjuna
मधूक	-	Bassia Latifolia
तिलक	-	Barlesia Cristala
ताल	-	Palmyra
शिंशपा	-	Dalbergia Sissn
अरिमेद	-	Feti Mimosa
राजादन	-	Mimosops Kauki
शिरीष	-	Mimosa Sirisa
खदिर	-	Mimosa Catechu
सरल	-	Finus Longifolia
तालसरल	-	Aal tree or shorea robesta
अश्वकर्ण	-	Vatica Robesta
सोमवल्क	-	A kind of white khadira

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प्रियक	-	Yellow Sal tree
धव	-	Mimosa Hexandra

(All these are the trees of strong timber)

राजवृक्ष	-	Clitoria Ternatea
वट	-	Ficus Indica
पीलु	-	Carnea Arborea
कन्दली	-	Mushroom
वज्रकन्द	-	Antiquoraum
पाठ	-	Clypea Hermandifolia
लोध्र	-	Symplocos Racemosa
तेजोवती	-	Piper Chaba
एलावालूक	-	Solanum Melongena
प्रियङ्गु	-	Panic Seeds
दारुहरिद्रा	-	A species of Turmeric
मरिच	-	Black Pepper
पिछली	-	Long Pepper
चोच	-	Bark of Cinnamon
चित्रक	-	Plumbaga Zeylanica
गजपिप्पली	-	Scindapsus Officinalis
क्रमुक	-	Betelnut
मुस्ता	-	Cyprus Rotundus
मोरटा	-	Alangium Hexapetalum
पलाश	-	Butea Frondosa
दत्तूर	-	Fastuosa
करञ्ज	-	Robinir Mitis
मेषशृङ्ग	-	A kind of poison
इन्दीवर	-	Blue lotus

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शत्रपुष्प	-	Anoth Humisowa
अपामार्ग	-	Achyranthes Aspera
शतपर्ण	-	Echites Scholars
निम्ब	-	Nimbamelia
वेत्र	-	Cane
वाशी	-	Jusiticia Ganderussa
श्यामलता	-	Fchnocarpus
नागलता	-	Betal
मालती	-	Jasminum Grandiflorum
मूर्वा	-	Samseveira Roxiburghiana
अर्क	-	Calotrjpis Crigantea
शण	-	Hemp
गवेधुक्	-	Colx Barbator
अतसी	-	Limum Usitatis Fimum
मुञ्ज	-	Saccharum Munja
बल्बज	-	Elengine, Indica
ताली	-	Corypha Taliera
ताल	-	Palmyra
भूर्ज	-	Birch
किंशुक	-	Butea Frondosa
कुसुम्भ	-	Carthamus Tinctorius
कुङ्कुम	-	Crocus sativus

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Life Values of Kautilya

Man is a social animal. He is created by the God along with other beings. But he is endowed with an extra quality. It is stated in a *Subhashita*.

"The food, sleep, fear, and sensual pleasure – These biological needs are common to both men and animals. The knowledge is the special quality in men. If this is lacking in them they are equal to animals".[1]

The word *manava* is derived from the root *man* to think. Man is endowed with the special quality with which he can distinguish the good from bad. He understands the value of human life. Because, the birth as human being is a gift. As stated by Adiguru Shankarabhagavatpada :

Jantunaam narajanmadurlabham.....(Vivekacudamani)
it is very difficult to get birth as a human being. Therefore, one should know the value of human life and make it more fruitful.

Man is a social being. Every man is a centre point of the world around him. No man is exclusively independent as he is attached to so many persons around him. At the time of birth itself he is attached to his parents. As a child, student, youth, householder and senior citizen he has to play many characters on this world stage. His failure affects the social structure like a single brick damaged causes the ruin of a building. Therefore, a man has to take care of the world around him. Here too he has many roles to play. For example a king, a minister, an

administrator – the Digitized by Muthulakshmi Research Academy they are first human beings, who have to consider the human values. Then as an administrator etc.

These values are inborn qualities to some people, while they are to be cultivated in some by human efforts. Once, these qualities are acquired by the man he can make his society as well as country happy and prosperous.

These values are acquired through education and discipline says Kautilya.

"The *vidya* (subject) imparts discipline to one whose intellect has (the qualities) the desire to learn, listening (to the teacher), learning, retention, thorough understanding, reflection, rejection (of false view) and intentness of truth and not to any other person (devoid of the above mentioned qualities)[2]."

Vinaya is also acquired by the association with seniors, who are knowledgeable and experienced in various Sastras and worldly affairs.

There are four goals for human beings mentioned in *sastras* as purusharthas – *dharma, artha, kaama* and *moksa*. The first three are to be observed by man with efforts which automatically lead to the fourth. The great sage Vyasa lays stress on the first one, i.e. Dharma. According to him the latter ones follow the first one :

"This I am crying (loudly) with my hands raised but no one listens to me. Artha and Kama are achieved through Dharma. Why the Dharma is not followed?"[3]

According to Indian tradition, the human life has got four stages, each stage having its own dharmas to do. The *Brahmacharya* (student life), *grhastha* (house hold life),

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Thus *Dharma* plays a significant role in human life which protects the social structure. *'Dharanaath dharmaha'* that which sustains is *dharma*. The values of human life are embedded in this *dharma*. Therefore, the earlier *rsis* have composed *Dharma-Sastras* through which the coming generations would know their duties and values of life. These *dharmasastras* not only explain what is a *dharma*, but also lay punishments for transgressing the *dharma*; society does not stick to discipline if there is no leader. Once, when there was no king, the law of fish prevailed and the people felt insecured. Then they altogether have chosen 'Manu' as their ruler. Because the absence of law (*danda*) creates chaos in society. Hence, it is stated—

"Danda instructs the people, it protects them and it is vigilant when all the people are asleep. Hence, the wise realized the Danda itself as Dharma.[6]

Therefore, 'The king should ever hold *danda*' says Kautilya (*nityamudyatadandah syath* K.A. 1-4-5).

No doubt it is the duty of the king to see his subjects stick to righteous path. At the same time the people also should observe their duties in a proper manner. A man or woman has different roles in social life. 'All the transactions begin with marriage' says Kautilya[7]. After establishing a family the householder should take care of his family and society. His personal life and behaviour certainly lays impact on the society as he is one of the components of the society. Hence, he should enjoy his life without violating the other two, i.e. *dharma* and *artha*. Kautilya does not insist the man to lead an unhappy life. He very clearly states that "*dharmarthavirodhena kamam sevetha. Na nihsukha syat* (K.A. 1-7-3). All the three are bound with each other. These are main principles which protect the human values. This earth is common

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vanaprastha (the forest life), *sannyasa* (ascetic life) - these four are to be observed in a systematic manner. Violation of these *asramas* and their *dharmas* cause the disorder in the society.

Kautilya explains the *dharmas* of four *varnas* (professional divisions) and four *asramas* which is as follows -

1. The special duties of the Brahmin are-studying, teaching, performing sacrifices, officiating sacrifices giving and receiving gifts.

2. The exclusive duty of the Kshatriya is living by arms and protecting the beings. First three are common to *brahmana, kshatriya* and *vaisya.*

3. The special duties of Vaisya are agriculture, animal rearing and business.

4. The duties of *Sudra* are - attending to the needs of the first three *varnas*, commerce and trade and making the tools and items needed by them (*karu* = artisan), and taking the professions like dancing and singing etc.[4]

Here, *Sudra* is not inferior. The smithy, carpententry etc, were their professions, which now come under the technical courses like Engineering etc. Almost all the goods necessary for the society were manufactured by them.

Similarly, the duties of *brahmachari* etc, are also explained by Kautilya. After explaining these individual duties Kautilya has focused on common *dharmas* to all the human beings. They are – *ahimsa* (not injuring any one), *satyam* (truthfulness), *soucham* (uprightness), *anasuya* (free from malice), *aanrsamsyam* (compassion), *kshama* (forbearance). "Following one's own dharma leads to svarga and to endless bliss"—says Kautilya.[5]

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property of all the beings. The Vedic statement "*Matabhoomihi. Putrooham prthivyaha*" is to be kept in mind.

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The duties of a *grhastha* according to Kautilya are -

1. Svadharmajeeva : Living by own (as per *varna*) profession, marrying woman of different (to his own) *gotra* and leading a married life.

Performing the rites to gods, manes, and hospitality towards guests, taking care of dependents, assistants etc, taking food after offering to all the above ones.

2. The duties of *brahmacharin* are (i) Self study, (ii) *Agnikarya* (offering oblations to sacrifice), (iii) Bathing (during the twilights), (iv) Living on alms and (v) Staying with preceptor.

3. The duties of *vanaprastha* are - (i) observing celibacy, (ii) sleeping on bare ground, (iii) wearing matted locks (no decoration), (iv) wearing an antelop skin, (v) worshipping the sacred fires, gods, manes and honouring guests, (vi) living only on forest produce.

4. The duties prescribed for *parivrajaka* (wandering monk) are - (i) self control, (ii) not involving in any type of activities, (iii) not possessing anything (money or articles), (iv) not moving with associations, (v) living only on alms, (vi) not staying in one place (always moving from place to place), (vii) staying in the forest, (viii) keeping the mind and body pure. (K.A. 1-3-9 to 12).

The *Brahmacharyasrama* is a student life. Studying and leading a disciplined life.

The *Grihasthasrama* is a house-holder life. Leading a disciplined, responsible life, receiving guests maintaining the

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family and taking care of seniors and dependents.

Vanaprastha is a very systematic life. Observing celibacy, sleeping on bare-ground, eating non-fat food etc.

Sannyasa Asrama is very pious and pure. The ascetics should have self-control, away from social activities and worldly affairs.

If these are compared to modern life styles of a student, householder, senior citizen and an ascetic respectively it is clear that everything appears to be out of track. Kautilyan law does not permit any violation of these rules and lays punishments even for a minor offence.

Kavikulaguru Kalidasa has summed up all this in one beautiful sloka, which means – (The Kings of Raghu dynasty) who studied in childhood, enjoyed (worldly) pleasures in the youth, spent an ascetic life in oldage and left the bodies by yoga at the end.[8]

These are the principles of life to be followed in various stages of life. The man has to undergo all these stages and in every stage he has got certain duties to be performed. As a householder he is more responsible, because not only the social burden, there is family burden also in this stage.

In fact the entire Arthasastra deals with human responsibilities. The king, the minister, the superintendents all have to follow certain ethics.

Here, without much focussing on administration, only life values, according to Kautilya would be presented.

Indian marriage system is a frame in which the life of a man is fixed. The relation between husband and wife is something

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special. The husband and wife are the supporting pillars of the family. If these two are disturbed, the entire family structure would collapse. Mutual affection and respect keep the relationship intact. Husband should not hurt his wife by using abusive language. He should never restrict her from going to her parents or relatives. At the same time the wife should not take the advantage of hushand's affection and generous attitude. She is the mistress of the house, so she should take care of the house. The aged parents, unmarried sisters, brothers depend on the householder. Hence, he should take care of all of them. If this is followed, there would not be any scope for orphanages, homes for the aged which are increasing day by day in today's society.

The householders should help the neighbours in case of distress. Kautilya says that if a person does not rush to help in case of fire accident he is punishable. *Pradipthamanabhidhavato grhsvamino dvadasapano dandaha* (K.A. 2-16-23).

In the chapter *nagarikapranidhihi* (2-16) Kautilya has discussed the duties of various people which focus on the values of life.

When a new person enters the city/village, he should be accommodated after verifying his details. The beneficial travellers, ascetics and Vedic scholars should be provided with lodging facility. The artisans and artists are to be accommodated with the persons of same profession. Similarly the business men with business people.

Throwing the dirt, muddy water, dead animals etc, on the road are punishable offences. Similarly spoiling the banks of rivers, temple premises with urine etc, are also punishable.

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The night patrolling police should behave in a proper way. Stopping the noble and not checking the wicked are offences. Particularly they should behave in a decent manner with women. According to Kautilya arresting the women at night and defiling them is such a serious offence that if it is in the case of a noble woman, the punishment according to him is the death (K.A. 2-36-41).

The businessmen should not cheat the public. Kautilya lays punishments even for a minor offence. The weights and measures should be properly checked. Though the gambling and prostitution were allowed in those days, Kautilya has laid rules even for them. No one is supposed to force a courtesan against her will and should not injure her and should not cause disfigure to her beauty. This is the most important point. According to Kautilya even one's own wife should not be forced for sensual pleasures. One should not take it for granted that a courtesan may be ill-treated. No, Kautilya provides protection for everyone in the society. All these acts are punishable. The jobs are provided to the aged courtesans and their children in Royal harem.

According to Kautilya the woman should be honoured. The employees like superintendent of yarn should provide the work material to the widows, orphans, divorcees etc. Looking at their faces was also considered as offence by Kautilya. He says the light should be focused only on the material not on the face of the woman "*sutraparikshartha matraha pradipaha*" (K.A. 2-23-13).

The employers should not ill treat the servants. Asking a female attendant to give the owner bath etc, are punishable.

The most important thing is the mutual cooperation in undertakings. An employer or an employee whosoever gives up

the assignment in the middle, is punishable. It is seen in modern times people running after money even by breaking the contracts and bonds. This is not to be allowed either by the employee or by the employer. For example a Ritvik a *yajamana* if leaves in the middle of the work the punishment is *purvasahasadanda (asamapte tu karmani yajyam yajakam va tyajaltahta poorvaha sahasadandaha* (KA. 3-14-36).

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Thus there are many topics concerning day-to-day life which are very exhaustively discussed by Kautilya.

According to him those who cheat the society are the thieves, such as businessmen, artisans etc. These are known as white color criminals. Kautilya says that the king should check the persons vanik etc, who though do not appear as thieves but are real thieves (K.A. 4-1-65).

If a man realises that this earth is not the property of his own but of all the beings and tries to live in harmony, then he can make this earth as the heaven. Hence it is stated -

Three persons collect the golden flowers on the earth. They are – Valourous one, an educated and one who knows how to serve (for the Survival).[9]

Footnotes:

1. आहारनिद्राभयमैथुनानि सामान्यमेतत्पशुभिर्नराणाम् ।
ज्ञानं हि तेषामधिको विशेषो ज्ञानेन हीनाः पशुभिस्समानाः ॥

Uttaragita-2-44

2. शुश्रूषाश्रवणग्रहणधारणविज्ञानोहापोहतत्त्वाभिनिविष्टबुद्धिं विद्या विनयति नेतरम् ।

K.A. 1-5-6

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3. ऊर्ध्वबाहुर्विरौम्येष न च कश्चिच्छृणोति मे ।
धर्मादर्थश्च कामश्च स धर्मः किं न सेव्यते ॥ MBH-Svarga-18-5

4. 1. स्वधर्मो ब्राह्मणस्याध्ययनमध्यापनं यजनं याजनं दानं प्रतिग्रहश्च।
2. क्षत्रियस्याध्ययनं यजनं दानं शस्त्राजीवो भूतरक्षणं च ।
3. वैश्यस्याध्ययनं यजनं दानं कृषिपाशुपाल्ये वणिज्या च ।
4. शूद्रस्य द्विजातिशुश्रूषा वार्ता कारुकुशीलवकर्म च ।
K.A. 1-3-5 to 8

5. सर्वेषामहिंसा सत्यं शौचमनसूयानृशंस्यं क्षमा च । स्वधर्मः स्वर्गायानन्त्याय च ।
K.A. 1-3-13,14

6. दण्डः शास्ति प्रजाः सर्वा दण्ड एवाभिरक्षति ।
दण्डः सुप्तेषु जागर्ति दण्डं धर्मं विदुर्बुधाः ॥ M.S. 7-18

7. विवाहपूर्वो व्यवहारः । K.A. 3.2-1

8. शैशवेऽभ्यस्तविद्यानां यौवने विषयैषिणाम् ।
वार्धके मुनिवृत्तीनां योगेनान्ते तनुत्यजाम् ॥ Raghuvamsa – 1-8

9. सुवर्णपुष्पां पृथिवीं चिन्वन्ति पुरुषास्त्रयः ।
शूरश्च कृतविद्यश्च यश्च जानाति सेवितुम् ॥
Quoted in Dhvanyaloka

Abbreviations:

K.A. – Kautilya's Arthasastra

MBH, Svarga – Mahabharata, Svargarohana parva

M.S. – Manusmriti

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Integral Humanism as reflected in Arthasastra

Acarya Kautilya in the concluding Adhikarana of Arthasastra once again explains the purport of this great work in following words -

"This treatise makes the human goals Dharma, Artha and Kama to move on and also protects them. It destroys the evil and the hatred of Dharma."[1]

The special characteristic mark of the human being is the power of thinking i.e. the intellect which distinguishes him from the animals.

"The biological needs food, sleep, fear and conjugal life – These four are common to Human beings and Animals. Only the knowledge is a special quality in human beings. Hence, those who are devoid of this quality are equal to animals."

The creator has created this world along with animate inanimate things in it. The resources are also provided for every being. But it is the human being who has become selfish and claims the ownership of this entire earth.

Prof. P. Sriramachandrudu satirically depicted the nature of human beings in his short poem *Vyaghreethanayasamvada* which is as follows –

"Long ago, God has created this entire expanse of land for the sake of all of us and also other beings like human beings etc,

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with the various types of food for them. But Alas! What to say about the change in the cruel time, this animal now claims possession over this entire land."[2]

The above sloka is counter example of humanism. Humanism is to feel all the co-beings as one's own beings and treat them equal to him. There should not be any difference between the self and other. Bhagavadgita states in clear terms that "He who looks upon others as self in pleasure and pain he is indeed a seer, yogi."[3]

The king who is a role model to the subjects should be like a saint. Acarya Kautilya describes the qualities of a noble king and his daily routine in the chapter "*Rajarshivrittam*".

Ancient scholars whether vedantins or statesmen or rehetorians or any other sastrakaras all were well acquainted with the psychology of human beings. Hence, everyone has tried to show a path leading to the four goals of human life. In this process the works on polity such as Kautilya's *Arthasastra, Kamandakiya, Pancatantra* and the *smritis* have also laid rules for the human beings so as to wake up the 'humanism' in them. The problem of human beings begins with in the self. Unfortunately they have the enemies inside the body who cannot be brought under control so easily. To defeat them the external weapons would not work. The sword of knowledge is the only means to cut them to size. Therefore, Kautilya says - The whole of the science (polity) is *Indriyajaya*.[4] He does not mean to say that one should give up all the pleasures in his life. He says that one should enjoy *kama* without violating the *Dharma*. In fact all the three should be given equal importance. Even if one of them enjoyed excess it will affect the other two and also the person who does so.

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The "Integral Humanism flashes throughout the entire work Arthasastra". The way it is advocated by Acarya Kautilya is a matter of interest. At first he communicates it through the character of the king. Then it is shifted to employees of the government and then to citizens. "The criminals are not born, they are made" is a well known statement. Every human being is a common human being by birth. The circumstances change him in to divine or demon character. Hence, it is the duty of the Adminstrator and subordinate officials to protect the human beings from the exploitation. This is what is advised by the treatise Arthasastra. The glimpses of humanism as reflected in Arthasastra may be brought under three main divisions – 1. The humanism in ruler, 2. The humanism in employees, 3. The humanism in citizens.

1. The humanism in Ruler (King)

The king having controlled his senses, should avoid the women and lust for the articles belonging to others and should give up the attitude of harassing the people.[5] *Ahimsa* is the first and foremost of all the virtues of a human being. All the sastras focus on the significance of this quality. Acarya Kautilya also explaining the 'Dharma' of various varnas says that "Ahimsa etc, are the dharmas of all the varnas'. "Common dharmas to all are – abstaining from injury, truthfulness, uprightness, freedom from malice, compassion and forbearance." Following one's own 'Dharma' leads to heaven and to endless bliss. While defining Dharma, Manu also enlists the above qualities. According to him the Dharma has ten characteristics which are as follows –

"Forbearance, forgiveness, senses control, not stealing other's things, integrity, self control, modesty, knowledge, truthfulness and devoid of anger."[6]

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These are mentioned in the list of the divine qualities in the sixteenth chapter of *Bhagavadgita* (16-2-4).

For all the four-fold varnas Manu says, *"Ahimsa satyamakrodhaha souchamindriyanigrahaha"* are the common virtues to be acquired.

Yogadarsana also prescribes the above qualities to reach the highest goal in human life.

Now it is the responsibility of the king to see his subjects follow the ethics. Hence, Acarya Kautilya states that the king should not allow the people to transgress their dharmas. *'Tasmat svadharmam bhoothanam raja na vyabhicharayet'* (K.A. 1-3-16). As a teacher controls the student by the way of strict discipline, so is the king who brings people under control with the support of 'Danda' the law.

"The people, of the four varnas and in the four stages of life, protected by the king with 'Danda' would stick to their prescribed duties and follow their respective paths"[7]. Why so much importance is given to the king, that too in the context of 'Humanism' is a question. The answer is found in the Arthasastra itself. Explaining the importance of the king Acarya Kautilya narrates a small episode which is as follows -

"People, over powered by the law of the fish, made Manu, the son of Vivasvan as their king and assigned one-sixth of grains, one-tenth of the commodities and money as his share (as a maintenance, income tax). With that the kings take care of their subjects (well being and security). Those who do not pay the taxes would incur the sin of the king and the king incurs sin if he does not fulfill his duty. Therefore, even the forest-dwellers offer a sixth part of their gleaned grains, saying "This is the share for

him who protects us".[8] This is an eye opener to the people who plans to escape from paying the income tax to the government and also to the administrator who does not provide facilities to his people.

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Thus it is the duty of the king to lead the people and to protect them from all the calamities. A king who is a real human being (Manava) the heir of Manu can do all this. The successors of Manu are Manavas. Only those who are endowed with the noble qualities of Manu deserve to be addressed as Manavas. Now, the activity of the people with human approach may be discussed here.

The most important thing to be maintained by the king is the protection of the people in distress. Acarya Kautilya says that "The king should maintain the children, aged persons and persons in distress and also the childless women."

This is the very important matter in any country the lack of which is leading to 'old age homes' to throw away the aged people in to a donzen like the perishable goods. Acarya Kautilya has made a rule to maintain the family. According to him if a person though capable, does not maintain his children and wife, parents, minor brothers, unmarried or widowed sisters should be punished with a fine of twelve panas. One cannot even renounce the home without the permission of the judges. It is seen that the fake saints create havoc in the society.

The bribe, corruption, suppression of the weak, cheating etc, are the major problems faced by a common man in the society. Any inhuman activity is to be controlled by the Administrator.

Acarya Kautilya states -

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"The nature of men is similar to that of horses which change when employed in works. Therefore, the details of the worker, office, place, time, work etc, should be watched". Two important things in the behavior of the employees are to be noted. 1. One who shows loss in the revenue eats the royal income, 2. Who shows excess of it eats the public money. Checking the employee who harasses people is the duty of the king.

There are many more such details in Arthasastra.

Regarding the commodities Acarya states –

"The superintendent of trade should cut out the goods that are harmful to the country and that are worthless and should make the goods duty free that are highly beneficial to the country and rarely available."[9]

Certain principles are to be followed by the employers in dealing with women employees. First of all it is very interesting to note that the physically disabled, mendicants etc, were also provided with employment in ancient India. In Sundarakanda of Ramayana a list of soldiers with ugly limbs is found in the description of the city Lanka. In Arthasastra too there is a list of persons who are to be appointed in Royal harem. The details are as follows –

"Humpbacks, dwarfs, eunuchs, women skilled in arts, dumb persons and different types of mlecchas should be employed (as spies) in the houses of different officials."[10]

2. The humanism in Royal Employees (Government Employees)

The superintendent of various departments should treat the subordinate employees with human approach. The department of commerce and trade is an important wing. The import and

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export of commodities should be done in a proper way. The main aim is the profit to the people not to the royal treasury. Hence, Acarya Kautilya says - "The officer should avoid even a big profit that causes financial burden to the subjects. He should not put any restriction of the time and the evil of a glut in the case of commodities which are constantly in demand."[11]

The duty should not be imposed on the goods intended for marriage, marriage-gifts, gift items, meant for various rituals and different vows.

The women employees who are involved in textile (hand-loom) industry should be provided with material in the work-shop. No one is supposed to misbehave with them not even allowed to look into their faces – says Kautilya. Moreover, the widows, maidens, etc, who have no support should be provided with the work in such places.[11]

Another important rule pertaining to women is the protection of courtesans. Though the prostitution was licensed in ancient India as a profession adopted by some women for livelihood, there have been rules laid for the courtesans and their customers. The most important one is the rape was not allowed even in the case of courtesans. The punishment was so severe that no one can dare to force any courtesan. If unwilling she can give up that profession. The sons of courtesans who are trained by the teachers, experts in theatre arts can make their livelihood. The teachers who train the courtesans in various Arts like vocal, instrumental music, knowing other's feeling, preparing perfumes and garlands and the course of beautician etc, should be provided with maintenance for life time.

This means to say that no human trafficking was allowed, no child labour was seen. The study of Arthasastra makes one

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realize that there was no exploitation in Research Academy in ancient India before the invasion of foreign rulers.

There are thieves who are not called as thieves. Some of them are white collar criminals and some are in the form of mendicants, beggars etc. Doctors also come under white collar criminals who cause death by wrong medication. An exhaustive list of such persons and their inhuman activities are described by Acarya Kautilya in the chapter entitled *kaarukarakshanam* (protection from artisans).[12] At the end of the chapter he states – "Thus, the king should prevent thieves who are not known as thieves such as traders, artisans, actors, mendicants, jugglers and others from oppressing the country."[13]

3. The humanism in Citizens

It is very unfortunate to state that the 'Humanism' in modern times is hardly found in human beings. It was not much talked but was integral part of life in ancient times which now is discussed everywhere but seen nowhere. Any 'ism' is not that easy to inculcate then what to say humanism. Every individual is worried about one or other 'ism' but not humanism. There is a joke that once a fly started cleaning its house, in the process it has forgotten its name. Every human being is a social animal. No one is born exclusively without any bondage. The body is a bondage, prior to that the umbilical card is a strong bondage.

Humanism is like the soul which resides with in us but is always treated as different form us. There should be a teacher to alert us, awaken us and remind us that you are a human being. Generally it is seen in the society that a man doing a great work is called god, committing cruel thing is called a demon. But it is hardly heard or seen a man addressed as a man in the society. Hence, the parents and teachers should remind the children that

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they are first human beings. Infact, the contribution of entire literature may be any language is to focus on this aspect only. The Vedas, epics, puranas and kavyas have their main purport to teach the ethics to the human beings. Particularly the works on polity the Smritis, Dharmasastras and Arthasastras have tried their level best to inculcate the concept of humanism in the minds of the people. Hence, they prepared a code of conduct which leads the human beings to the righteous path and protects from the downfall from it. The credit of dealing with the things systematically goes to the great Acarya Kautilya who has provided a powerful lamp to the righteous path. The rules prescribed in his work 'Arthasastra' make every person realise humanity. The well being of a country depends on the well being of the society so is of the society on the well being of a citizen. Hence, the citizens should feel their responsibility as human beings and strive for the well being of the society.

As mentioned in the beginning "Ahimsa etc, are the characteristics of Dharma i.e. *manavadharma* which is humanism. One is not supposed to cause injury to any one either by speech or by action or by thought. These are considered as crimes by Acarya Kautilya who has mentioned them in the chapter *kantakasodhanam* i.e. criminal law.

According to him using abusive language is a crime. Even if one comments on physical disability or addresses someone by the words indicative of disability is a crime.

For example he says that – The husband is not supposed to use the words like "o ruined one, o destroyed one, o disabled one, o father less one, o mother less one etc. For using such words the fines are imposed half of those which are prescribed for *vakparusya*."[13] Here it is to be noted that freedom of speech does

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not mean that one can use any abusive language. It is a crime, which even the so called great people ignore it. Unless there is a punishment for this crime it cannot be controlled.

Regarding the eight types of marriages, Acarya Kautilya says "only four – *brahma, prajapatya, arsha* and *daiva* are lawful. The remaining *gandharva, asura, rakshasa* and *paisaca* were not acceptable to Acarya Kautilya. Asura, rakshasa and paisaca are really inhuman. Thus the concept of humanity is incorporated in the marriage system itself. Taking and giving dowry are crimes.

According to ancient law verbal injury is an offence. Acarya Kautilya says "Defamation, vilification and threat – these three constitute verbal injury". Calling the disabled by mentioning the defect such as 'o blind', 'lame' etc, is offence for which the fine is three panas. Calling by using the above terms to the people not disabled also is an offence. For sarcastic words also fines imposed by Acarya Kautilya. All these are devilish actions. Most inhuman things. Unless these are controlled it is not possible to maintain social harmony.

Touching the parts of body below the navel comes under physical injury. Applying mud or ashes etc, on other's body is an offence. Squeezing, dragging, holding the cloths, hair etc, are also offences. Thus a detailed list of indecent actions is given in the chapters eighteen, nineteen of 3rd Adhikarana, which deals with Civil-law. Not only human beings even the animals are also not to be harassed. If the rules of Arthasastra implemented in modern times the ragging, eve-teasing etc, would automatically disappear.

It is also interesting to note that the superintendent of slaughter-house has to look in to the affairs belonging to animals. Because, the birds or animals (killed) would be brought to the

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slaughter-house only. Acarya Kautilya lays strict rules regarding birds and animals the details of some are as follows – Binding or killing the fish and birds which are not supposed to be killed the fine is 26¾ panas. Various types of fish, the birds of sport, deer etc, are to be protected. For injuring them the fine is 48 to 96 panas. Not only to the animals, but causing injury to the trees is also considered as offence. For cutting the sprouts, branches etc, the fines are imposed.

For cutting the shoots of trees in city parks that bear flowers or fruits and give shade, the fine is 6 panas.

For cutting small branches, the fine is 12 panas

For cutting stout branches, the fine is 24 panas

For destroying the trunks, the fine is 48 to 96 panas

For uprooting the tree, the fine is 200 to 500 panas

For cutting flowery bushes and creepers, the fine is 100 to 250 panas

For cutting the trees in holy places, penance groves and cremation grounds the fine is 100 to 250 panas.

Milking the cow twice in summer is also considered as an offence. Thus, Arthasastra focuses on the human life in this world in which he is surrounded by so many co-beings. If at all man claims possession on this earth, it is also his responsibility to take care of his property for which he should remain as a real human being with humanism in him. The veda declares

Maataprthivi, putroham prthivyaha. And also the quest for the peace is thus expressed –

"Prithivi Santih, Antariksham Santih....

Santireva Santih"

Footnotes:

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1. धर्ममर्थं च कामं च प्रवर्तयति पाति च ।
   अधर्मानर्थविद्वेषानिदं शास्त्रं निहन्ति च ॥ K.A. 15-1-72

2. धाता पूर्वमशेषभूमिवलयं निर्मायचास्मत्कृते
   स्वादिष्टान्नतया ससर्ज विविधान् जन्तून् नरादीनिमान् । हा हा हन्त!
   करालकालविकृतिः किं वाद्य ते वर्ण्यताम्
   स्वेयं भूमिरिति ब्रुवन्नधिकृतिं प्रेप्सत्ययं श्वापदः ॥
   Vyaghritanaya Samvada-4

3. आत्मौपम्येन सर्वत्र समं पश्यति योऽर्जुन ।
   सुखं वा यदि वा दुःखं स योगी परमो मतः ॥
   Bhagavadgita – 6-32

4. कृत्स्नं हि शास्त्रमिन्द्रियजयः । K.A. 1-6-3

5. एवं वश्येन्द्रियः परस्त्रीद्रव्यहिंसाश्च वर्जयेत् । K.A. 1-7-2

6. धृतिः क्षमा दमोऽस्तेयं शौचमिन्द्रियनिग्रहः ।
   ह्रीर्विद्या सत्यमक्रोधः दशकं धर्मलक्षणम् ॥ Manusmriti-6-92

7. चतुर्वर्णाश्रमो लोको राज्ञा दण्डेन पालितः ।
   स्वधर्मकर्माभिरतो वर्तते स्वेषु वर्त्मसु ॥ K.A. 1-4-16

8. मात्स्यन्यायाभिभूताः प्रजा मनुं वैवस्वतं राजानं चक्रिरे । धान्यषड्भागं पण्यदशभागं हिरण्यं चास्य भागधेयं प्रकल्पयामासुः । तेन भूता राजानः प्रजानां योगक्षेमावहाः । तेषां किल्विषमदण्डकरा हरन्त्ययोगक्षेमवहाश्च प्रजानाम् । तस्मादुञ्छषड्भागमारण्यका अपि निर्वपन्ति - "तस्यैतद् भागधेयं योऽस्मान्गोपयति" इति । K.A. 1-13-5 to 9

9. K.A. 2-21-31

10. अन्तर्गृहचरास्तेषां कुब्जवामनपण्डकाः (षण्डकाः) ।
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शिल्पवत्यः स्त्रियो मूकाश्चित्राश्च म्लेच्छजातयः ॥ K.A. 1-12-21

11. सूत्रपरीक्षार्थमात्रः प्रदीपः । स्त्रिया मुखसन्दर्शने ..... पूर्वः साहसदण्डः । K.A. 2-23-13,14

12. K.A. 4-1

13. एवं चोरानचोराख्यान् वणिक्कारुकशीलवान् ।
भिक्षुकान्कुहकांश्चैव वारयेद्देशपीडनात् ॥ K.A. 4-1-65

14. नष्टे, विनष्टे, न्यङ्गे, अपितृके, अमातृके इत्यनिर्देशेन विनय.ग्राहणाम्। K.A. 3-3-7

15. K.A. 3-18-1

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Kautilya on Women' Welfare

"Where the women are given respect, there rejoice the gods" says Manu.[1] Though saying "*Na strisvatantryamarhati*" Manu, wants that women should be respected (Even that sloka is misinterpreted by some scholars. It is a matter of discussion which needs a separate platform). Kautilya never lays down such specific rules about women; he simply gives the general rules applicable to both the men and women.

"According to Kautilya women are equal to men, they were not deprived of freedom nor were given less importance in the society in Kautilya's time. After explaining about discipline in first Adhikarana, and the duties of officers in second Adhikarana, Kautilya has explained about the law in third adhikarana '*Dharmasthiya*'. In the first chapter of this Adhikarana he explains about transactions. He begins the second chapter of this Adhikarana saying "*Vivahapurvo vyavaharaha*"[2] i.e. all the legal affairs begin with marriage. Next he has explained about the 8 types of Hindu marriage. They are *Brahma, Prajapatya, Arsha, Daiva, Gandharva, Asura, Rakshasa* and *Paisaca*. The same 8 types are mentioned in Manusmrti and Yajnavalkyasmrti. Of these 8 types of marriage Kautilya says first four are *dharmavivahas*[3].

According to Kautilya woman attains majority at the age of 12 and man at the age of 16.[4] After attaining majority they are responsible for their own deeds. With this rule it is clear that even if a woman got married before the age of 12, after attaining 12 years only she has to carry her marital duties.

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In first four types of the above mentioned marriages the consent of the bride or bridegroom is not needed. In remaining four types the Gandharva is the marriage with the mutual love and consent of both bride and bridegroom. This was frequently mentioned in ancient Kavyas. In our modern society it is called love marriage. The last three are no way lawful. That is why they have given the names such as *Asura, Rakshasa* and *Paisaca*.

In the *Asuravivaha* the *Kanyasulka* i.e. dowry will be given to the bride or her parents. Just opposite to that, the dowry to the bridegroom is introduced in later times. But these two either *Kanyasulka* or *Varasulka* are not good or lawful. The next is *Rakshasa* and then *Paisaca*. These two marriages are not at all marriages, but come under abduction. They are severely punished in modern society.

The *Kanyasulka*, i.e. what was given to the bride was treated as woman's property. There was no right to the husband to spend woman's property without the permission of wife in Kautilya's time. The ornaments or gifts given to women at the time of marriage also come under woman's property i.e. *Stridhana*[5]. The husband may spend it in cases of distress or on auspicious occasions with the consent of the wife; otherwise, he is to be punished. If one wants to remarry when the first wife is alive, he has to return the Sulka and Stridhana to the woman. Thus the woman's position was no way inferior to that of man and was safe in Kautilya's time.

Marital duties

'After discussing about the marriage system and women's property let us have a look into the "House-hold life" in Kautilya's time.

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According to Kautilya, the husband and wife should carry out their marital duties with full cooperation and mutual affection. If anyone of them is averse to sensual pleasures or if they do not have mutual affection they may take divorce with the permission of the concerned authorities. If the husband wants to leave her he should provide maintenance for her. If the wife is unwilling to live with him, she has to return everything what was given to her at the time of marriage by her in-laws. But this divorce was allowed only when there were genuine reasons.

If anyone renounces home, being able to maintain his family and dependent sisters, brothers, it is an offence. Such persons who escape from household duties were to be punished. But if the family members become outcastes they need not be maintained. A mother, though she becomes an outcaste should be maintained. If a man is averse to sensual pleasures, he may renounce the home with the permission of the authorities.

A woman should carry out her household duties in a proper way. She should not ill-treat her husband. If a woman does not open the door to her husband who comes at late nights or she goes away from home when the husband is asleep they come under offence. In the same way a husband scolding his wife by using abusive words such as 'naked' (shameless) etc, it is an offence. A wife, when prohibited should not go to witness any shows either alone or in the company of others. For, prohibition will not be without reason. Hence when prohibited one should not transgress the rules. But these rules are not ties to the women. For, Kautilya says "a woman though prohibited may go to her relatives in case of death, disease, distress or on auspicious occasions. One prohibiting his wife on such occasions should be punished."[7] With the above rule it is clear that all the restrictions were put to protect the social life and to avoid social disorder.

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A man neglecting his wife to have carnal relations with others, is an offence. In the same way one approaching his wife who is averse to sensual pleasures is an offense. One should not force his wife for conjugal relation when she is unwilling. In such cases if he wants he may marry another woman with the permission of authorities. For a woman who wants to lead a pious life, or who has got dead child etc, being in a sad condition may not like the conjugal relations. They should be excused due to their mental conditions.[8]

Remarriage

According to Kautilya one should approach his wife as per her *Rtukala*. He says, obstruction of menstrual period is the destruction of sacred duty.[9] This rule is laid by Kautilya to avoid sexual crimes in society. A man who has no children in his wife and desirous of children may remarry after returning the woman's property to her. For, Kautilya says "women are for the sake of children". In the same way a woman in absence of her husband may approach another for the sake of children. According to Kautilya it is not an offence. But there are certain rules to be followed.

According to Kautilya a woman whose husband has gone abroad or whose husband is impotent or idiot and so on may leave her husband and marry another man.[10] Here Kautilya has prescribed different periods to the women of the different castes to wait for their husbands.

Kautilya says, a woman whose husband has gone for a short period, should wait for 4 years if she is the wife of a Brahmana, 3 years in the case of Kshatriya's wife, 2 years in the case of Vaisyas wife, 1 year in the case of Sudras' wife. The

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above mentioned period is for those who do not have children. Those who have children should wait for one more year than the above mentioned period. If they are provided with maintenance should wait for double the above mentioned period. If they are not provided with maintenance, their relatives should provide it for 4 or 8 years. After that if the husband does not come back, the relatives may allow her to remarry after taking back the money given to her at the time of marriage. Because, livelihood is the major problem for a human being. If a woman is not provided with maintenance when her husband is out of state, being incapable of maintaining the family she may choose an alternative way. Hence, either she should be provided with maintenance or should be permitted for remarriage.

But this rule is not applicable in all cases. He says, the wife of a Brahmana, who has gone away for studies should wait for 10 years if she has no children, otherwise, she has to wait for 12 years. The wife of a King's servant i.e. government employee should wait for life long time. For he has gone on official duty. If such rule is not there, being afraid of the future of his family no one would take up royal duties. Thus Kautilya's insight reflects in each rule. Meanwhile if she bears a child from a savarnaman, she should be treated as guiltless. For, in ancient Sastras there is the mention of *naraka* for the childless. This is seen in Mahabharata in the practice of *niyoga*.

According to Kautilya a woman who has no support or is in distress may remarry for the sake of livelihood. Not only about these points, Kautilya makes clear one more point about the married Women. He says, in the case of pious marriage, the maiden should wait for her husband for different periods as per the condition. Here he uses the term as '*Dharma Vivahat kumari*'.

R.P.Kangle explains this in the following manner. 'Dharmavivaha' is any one of the first four types i.e. Brahma etc. Kumari means, one whose marriage is performed but not consummated. That is a wife who still is a virgin.

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The rules of remarriage for such a woman who is a *Prositabhartrka* (whose husband is on a long soujorn) are as follows :

If the husband has gone away without informing his wife, and no news from him, the wife should wait for seven menstrual periods. If the news is heard from him, she should wait for 1 year. If the husband is gone away after informing her and no news is heard about him, she should wait for 5 menstrual periods. If she is informed his whereabouts she should wait for 10 periods.

In the case of a woman to whom a part of sulka is paid by her husband, should wait for three periods, if there is no news from husband; otherwise, she should wait for 7 periods.

The woman who is given the complete dowry should wait for five periods, if she does not receive any news from him. Otherwise, she should wait for 10 periods. After waiting for the prescribed period, she may remarry as she desires, with the permission of the judge.

Actually, these above rules make it clear that Kautilya has laid such rules to avoid sexual crimes. Not only here, in one place he says, one should not be devoid of happiness. One should enjoy his life without disturbing *Dharma* and *Artha*. For, a man who is devoid of pleasures, may trouble other or may deprive others' happiness.

The wife of a person, who has gone away on a long sojourn or who has become a wandering monk or is dead should wait for

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seven periods, if she has no children, otherwise, she should wait for one year. Because there were no communication facilities in those days. That is why the above mentioned period is to wait to know his whereabouts. If there is no news from him it may be considered that either he is not alive or has become monk or wants to cut off the relations with his wife. In such cases, if they are provided with maintenance they can easily wait for their husbands. Otherwise, they have to face problems for their livelihood. That is the reason Kautilya has prescribed a limited time owing to their conditions. So, one who knows about such rules will inform his whereabouts without delay, if he wants to maintain his relations with his wife. Thus keeping in view the very common problems which people have to face in daily life Kautilya has laid the above rules.[11]

The above information makes it clear that the position of woman in ancient times was honourable and safe. Some modern scholars without going to the ancient treatises blame that women were suppressed in ancient times. They should realize that not in ancient times but only after invasions by foreigners the position of women got worsened. Also due to greedy parents like in *Kanyasulka* the girl-child faced many problems. The social reformers like Gurajada and Kandukuri have brought changes because, they were well acquainted with ancient Indian Culture.

Footnotes:

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1. यत्र नार्यन्तु पूज्यन्ते रमन्ते तत्र देवताः ।
   यत्रैतास्तु न पूज्यन्ते सर्वास्तत्राफलाः क्रियाः ॥ M.S. 3-56
2. K.A. 3-2-1
3. पितृप्रमाणाश्चत्वारः पूर्वे धर्म्याः ।
   K.A. 2-2-10
4. द्वादशवर्षा स्त्री प्राप्तव्यवहारा भवति, षोडशः पुमान् । K.A. 3-3-1
5. वृत्तिराब्ध्यं वा स्त्रीधनम् । K.A. 3-2-14
6. K.A. 3-3-15 to 18
7. K.A. 3-3-20 to 24
8. K.A. 3-2-45
9. तीर्थोपरोधो हि धर्मवध इति कौटिल्यः । K.A. 3-4-14
10. K.A. 3-2-29
11. K.A. 3-chapters 2 to 3

Abbreviations:

K.A. – Kautilya's Arthasastra

M.S. – Manusmriti

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